16 P9r
63, no 1
Room
SOCIAL SCIENCES

Public Health Reports

VOLUME 63 JANUARY 2, 1948 NUMBER 1

TUBERCULOSIS CONTROL ISSUE NO. 23

IN THIS ISSUE

Editorial—Fiftieth Anniversary

Tuberculosis Mortality in Major Cities: U. S. 1945

CONTENTS

	Page
Editorial—Fiftieth anniversary. Francis J. Weber	1
Tuberculosis mortality in major cities: United States, 1945. Sara A. Lewis and Richard V. Kasius	3
INCIDENCE OF DISEASE	
United States:	
Reports from States for week ended December 13, 1947, and comparison with former years	31
Weekly reports from cities:	
City reports for week ended December 6, 1947	35
Rates, by geographic divisions, for a group of selected cities	37
Territories and possessions:	
Panama Canal Zone—Notifiable diseases—October 1947	38
Puerto Rico—Notifiable diseases—4 weeks ended November 29, 1947	38
Foreign reports:	
Canada—Provinces—Communicable diseases—Week ended November 22, 1947	39
Mexico—Guanajuato—Diphtheria	39
Reports of cholera, plague, smallpox, typhus fever, and yellow fever received during the current week—	
Cholera	39
Plague	40
Smallpox	40
Typhus fever	40
Deaths during week ended December 6, 1947	40

NOTE

The article "Tuberculosis Case-Finding Survey of the Total Population of Reykjavik, Iceland in 1945," by Sigurdur Sigurdsson and Oli P. Hjaltested, Public Health Reports, Vol. 62, No. 45, November 7, 1947, contained several errors. These should be corrected as follows:

Page 1594, third line from bottom; page 1595, first line; page 1597, third line should read "1 to 6 years of age."

Page 1603, beginning of second paragraph should read "Table 4 sets out . . . "

Page 1605, first line should read "Tables 5 and 6 set out . . . "

Page 1605, table 4. Column headings should be "per mil" instead of "percent."

Public Health Reports

Vol. 63 • JANUARY 2, 1948 • *No. 1* *

Printed With the Approval of the Bureau of the Budget, as Required by Rule 42 of the Joint Committee on Printing

EDITORIAL

FIFTIETH ANNIVERSARY

The celebration this year of the fiftieth anniversary of the founding of the first State sanatorium in the United States, at Rutland, Massachusetts, is an event to be viewed with great satisfaction. It directs our attention to the great work which tuberculosis sanatoria everywhere have carried out in the tuberculosis control movement during the past fifty years. These sanatoria have been at the very heart of this public health program, and every day has borne witness to the fruitfulness of their efforts. At one time not so long ago, tuberculosis was believed to be an incurable disease. It remained for the early sanatoria, such as those of Dr. Trudeau at Saranac, and the Rutland Sanatorium, to demonstrate that what was then called "consumption" could be arrested. In and of itself, this discovery was of vast importance; even more than that, however, the sanatorium has provided the means whereby that vital element in tuberculosis control—isolation—can be effected for the protection of the public health.

With time, too, the programs of the sanatoria have broadened to include many activities aside from actual treatment. Material progress has been seen in the inclusion of sanatorium programs of rehabilitation, vocational guidance, medical social service, and research. Further, the out-patient department is rapidly becoming an integral part of sanatoria. Thus, not only has the modern sanatorium succeeded in serving the public interest by the application of isolation techniques—it has, indeed, come to symbolize the hope and possibility for cure in this all-too-costly disease.

Since the founding of the first State sanatorium, communities have come to recognize more and more their responsibility for the support of institutions for the tuberculous. The decision to erect special facilities for the treatment of the tuberculous has been, in fact, a

*This is the twenty-third of a series of special issues of PUBLIC HEALTH REPORTS devoted exclusively to tuberculosis control, which will appear the first week of each month. The series began with the Mar. 1, 1946 issue. The articles in these special issues are reprinted as extracts from the PUBLIC HEALTH REPORTS. Effective with the July 5, 1946, issue, these extracts may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 10 cents a single copy. Subscriptions are obtainable at $1.00 per year; $1.25 foreign.

logical expression of the realization that tuberculosis was, and is a public health problem. It is our conviction that the notable decline in tuberculosis mortality in the past 50 years can be attributed in no small measure to the general extension of sanatorium services and to the collective effort of the sanatorium movement. We say this despite the knowledge that many factors have contributed to the decline in tuberculosis mortality, and despite the fact that we do not know with exactness the relative importance of each of these factors.

The nation's sanatoria, working hand-in-hand with all official agencies and voluntary organizations interested in the public health, have furthered the national control program markedly, and will continue to play an important role in the success of future programs. We can expect that demands on these institutions will increase with the acceleration of case-finding programs.

In order to secure past gains in tuberculosis control, much remains to be done. It is up to public health workers to see to it that patients are referred to sanatoria for prompt treatment; it is up to the community to see that facilities are provided in sufficient quantity to meet the needs of all who require such care. Even now, mass case-finding programs are highlighting our need for some 50,000 additional beds for the tuberculous in the United States. These beds must be furnished with the utmost speed. Moreover, the means test as a condition for sanatorium admission must be abolished universally if we are to provide treatment for all requiring it. Adequate assistance for families of the tuberculous must be assured—for tuberculosis remains the leading cause of death in the 15 to 44-year age group, where family responsibility is greatest. Immediate and prompt action in these directions is requisite to the success of our national tuberculosis control program—failure to take the necessary action will in the long run prove to be poor economy.

If the implications of tuberculosis are today less terrifying and less desperate than they were 50 years ago, credit must go generously to the men and women of the sanatorium movement. Could we, indeed, bring to all phases of the tuberculosis control program the courage, singleness of purpose, and devotion to the cause of public health which these people have brought to their work, the very near future would witness the final and utter defeat of a disease already in retreat.

FRANCIS J. WEBER, *Medical Director,*
Chief, Tuberculosis Control Division.

TUBERCULOSIS MORTALITY IN MAJOR CITIES: UNITED STATES, 1945

By Sara A. Lewis [1] and Richard V. Kasius [2]

Of the 52,916 deaths from tuberculosis in the United States in 1945, 19,463, or 36.8 percent, were among residents of the 92 cities which had a population of 100,000 or more in 1940. The number of tuberculosis deaths among residents of the large cities, and the percent they form of tuberculosis deaths in the country as a whole, were 19,873 and 36.3 in 1944, an annual average of 20,529 and 35.8 in 1942–43, and an annual average of 20,953 and 34.7 in 1939–41. These data indicate a small but steady increase in the large cities' share of the national tuberculosis problem.

This is another in the series of reports on tuberculosis mortality in the large cities which have been issued by the United States Public Health Service [3] or jointly by the United States Public Health Service and the Bureau of the Census.[4] Its purpose is to present data for 1945 on the mortality from tuberculosis by age, race, and sex for the 92 cities with a population of 100,000 or more in 1940. All data are by place of residence and exclude deaths among the armed forces overseas.

Because population estimates necessary for computing death rates are not available, further use is made in this report of the tuberculosis death ratio, or proportionate mortality. This measure expresses the number of deaths from tuberculosis per 100 deaths from all causes and is used as an index of the relative importance of tuberculosis as a cause of death.

From a comparison of the tuberculosis death ratio for one community with that for another, it is possible to determine the difference between the two communities with respect to the importance of tuberculosis as related to the total mortality problem. The movement of the tuberculosis death ratio over a period of time for a given community reveals the course of the tuberculosis death rate relative to the general death rate. If the ratio increases, the tuberculosis death rate is either rising faster or decreasing more slowly than is the general death rate; if it remains constant, the two are following the same course; if the ratio decreases, the tuberculosis death rate either has dropped more rapidly or has risen more slowly than has the total death rate.

---

[1] From the National Office of Vital Statistics, United States Public Health Service.

[2] From the Tuberculosis Control Division, United States Public Health Service.

[3] Liveright, Dorothy: Tuberculosis Mortality among Residents of the 92 Cities of 100,000 or more Population, United States, 1939–41, Pub. Health Rep., 59: 942–955 (1944).

Pitney, E. H., and Kasius, R. V.: Tuberculosis Mortality in Major Cities: United States, 1944, National Office of Vital Statistics, Vital Statistics-Special Reports, vol. 25, no. 10, pp. 165–195 (1946); also Pub. Health Rep., 61: 1443–1454 (1946).

[4] Kasius, R. V., and Pitney, E. H.: Tuberculosis Mortality in Major Cities, United States, 1942-43, Bureau of the Census, Vital Statistics-Special Reports, vol. 21, no. 14, pp. 235–281 (1945); also Pub. Health Rep. 61: 297–312 (1946).

TABLE 1.—*Death ratios for tuberculosis (all forms) by age, race, sex, and population-size groups: United States, 1945*

[By place of residence. Ratios are the number of deaths from tuberculosis per 100 deaths from all causes]

Race and population-size group	Total	Male							Female						
		All ages [1]	Under 15	15–24	25–34	35–44	45–64	65 and over	All ages [1]	Under 15	15–24	25–34	35–44	45–64	65 and over
United States:															
All races	3.8	4.2	1.2	11.9	16.3	12.2	5.4	1.4	3.3	1.7	25.2	20.5	9.1	2.6	0.8
White	3.1	3.6	.9	7.9	13.5	11.1	5.2	1.3	2.5	1.3	18.6	17.9	8.5	2.4	.8
Nonwhite	8.5	8.7	2.8	28.0	25.5	16.4	7.4	2.3	8.3	3.7	40.4	27.1	10.9	3.4	1.1
Cities of 100,000 or more:															
All races	4.4	5.2	1.8	16.4	19.9	14.2	6.0	1.7	3.3	2.4	31.6	22.2	8.8	2.1	.5
White [2]	3.5	4.4	1.4	10.4	16.6	12.6	5.5	1.6	2.4	1.6	22.0	18.3	7.8	1.9	.5
Nonwhite [3]	11.1	11.9	4.0	35.8	29.4	20.0	9.4	3.4	10.3	6.1	51.4	31.9	11.9	3.3	1.1
Places under 100,000:															
All races	3.5	3.7	1.1	10.6	14.7	11.0	5.1	1.3	3.2	1.5	22.6	19.6	9.3	2.8	.9
White [4]	3.0	3.3	.8	7.4	12.5	10.3	5.0	1.2	2.7	1.2	17.8	17.8	8.9	2.7	.9
Nonwhite [4]	7.2	7.1	2.4	24.6	23.2	13.7	6.1	1.9	7.3	2.9	34.8	24.4	10.4	3.5	1.1

[1] Includes age not stated.

[2] Based on data including deaths of nonwhite residents of cities having small nonwhite populations (less than 20,000 or less than 10 percent according to the 1940 census).

[3] Based on data for only those cities in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

[4] The distribution of deaths by age, race, and sex for places under 100,000 population was obtained by taking the difference between the distributions for the United States and for the group of cities of 100,000 or more population. It was necessary to estimate the latter distribution in part because deaths of residents of the 52 cities having small nonwhite populations were not available by age for the two race groups separately. However, since the numbers of deaths at all ages for this group of 52 cities were available by race and sex it was possible to correct the distributions of the total white and nonwhite deaths for the group of 92 cities. Correction was made on the assumption that deaths of the nonwhite residents of the 52 cities were distributed by age proportionate to the age distribution of deaths of nonwhites in the other 40 cities.

Among the important factors affecting the death ratio are the general mortality and the composition of the population with respect to age, race, and sex. A community with a large proportion of its population at the younger ages, where the number of deaths from all causes is relatively small, may have a rather high tuberculosis death ratio; while an area having a large proportion of its population at the older ages, where the number of deaths from all causes is large, may have a rather low death ratio. Thus, in some cases, tuberculosis death ratios may differ because of differences in the composition of the populations rather than because of any real difference in tuberculosis mortality. The effect of such differences may be controlled in large measure by the use of death ratios specific for age, race, and sex. A more extended discussion of the interpretation and limitations of the death ratio has been presented in an earlier report.[4a]

Tuberculosis mortality by age, race, and sex.—Table 1 and figure 1 present the number of deaths from tuberculosis per 100 deaths from all causes in 1945 among residents of the 92 cities, by age, race,[5] and sex. The age curves of the tuberculosis death ratios in that year for each race-sex group are typical of those seen in previous years. The ratios rise steeply from a relatively low level at the youngest ages, reach their highest points during the young adult years, and recede through middle and old age.

In figure 1 the magnitude of tuberculosis proportionate mortality for the young adult portion of the population is immediately observed. The white male population of the 92 major cities experienced its greatest relative mortality from tuberculosis (16.6 percent of all deaths) in the age group 25 to 34 years, while the tuberculosis death ratio among white females residing in these areas was highest (22.0) in the 15 to 24 age group. For the nonwhite races, the proportion of deaths resulting from tuberculosis reached its maximum point for both sexes in the age group 15 to 24. In the major cities in 1945, 35.8 percent of all deaths among nonwhite males between 15 to 24 years of age were attributed to tuberculosis, and among nonwhite females at these ages this cause accounted for 51.4 percent of the total deaths, or more than all other causes combined.

While tuberculosis is of greater relative importance as a cause of death among females than among males at the younger ages, the tuberculosis death ratios for both white and nonwhite males are higher than those for white and nonwhite females in the age groups 35 to 44 and over, and at these ages the tuberculosis death ratios decline faster among females than among males.

[4a] See footnote 4 on page 3.

[5] Deaths have been tabulated by race for only those 40 cities in which the nonwhite population numbered at least 20,000 or constituted 10 percent of the total population, according to the 1940 census. Deaths of nonwhite residents of the 52 major cities having small nonwhite populations (less than 20,000 or less than 10 percent, according to the 1940 census) are included with those for whites. The inclusion of these deaths (542 from tuberculosis and 5,063 from all causes) results in an overstatement of the tuberculosis death ratio or white residents of the group of 92 cities amounting to 0.1 per 100 deaths from all causes.

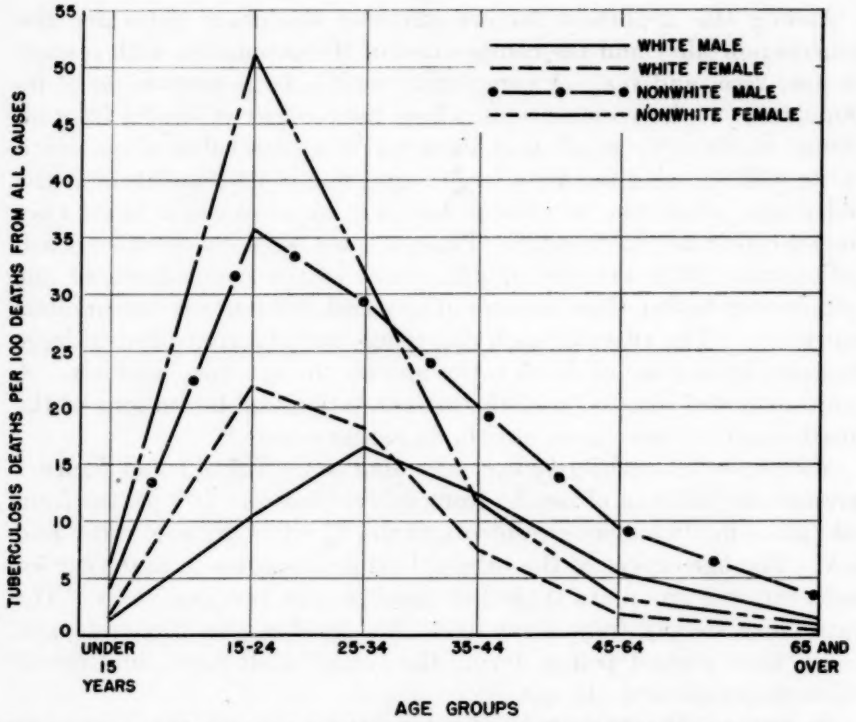

FIGURE 1.—Death ratios for tuberculosis (all forms) by age, race, and sex, for residents of cities of 100,000 or more: United States, 1945.

Community-size.—Table 1 also compares the proportionate mortality from tuberculosis for all residents of the 92 largest cities with that for the combined populations of smaller cities and rural areas. (The race-specific ratios shown in table 1 for places under 100,000 population are based in part on estimated data.[6])

It may be seen that tuberculosis presents a greater problem in the largest cities for white and nonwhite males in each age group. At the younger ages, the mortality ratios for female residents of the major urban areas also compare unfavorably with those for females in the remainder of the country. However, an inverse relationship between community-size and the tuberculosis death ratio appears among white women in the age groups 35 to 44 and over, and among nonwhite women in the age group 45 to 64, while no difference is seen among nonwhite women 65 years of age and older.

The difference observed between the relative importance of tuberculosis as a cause of death in the major cities and in the remainder of the country can, to some extent, be attributed to differences in occupation and to factors associated with residence in large urban areas, such as the greater contact among residents and, hence, the

[6] See footnote 4 to table 1.

possibility of more frequent exposure to infection. Of particular interest is the difference seen in the mortality experience of younger and older women. These findings agree with those of Yerushalmy and Silverman, who observed a similar association between community-size and tuberculosis death rates for 1940.[7]

In considering these data on tuberculosis mortality recorded for residents of large cities and smaller communities, differences in the reporting of cause of death in these areas must be borne in mind. More widespread use of medical facilities in metropolitan areas probably increases the accuracy of judgment regarding causes of death and may affect the frequency with which a diagnosis of tuberculosis is made.

1939 to 1945.—The rapid expansion of industrial activity which began in 1939 and which resulted in longer working hours, increased employment among women, housing shortages, and other difficult living conditions, gave reason to fear an increase in tuberculosis in urban areas during the war years. In order to compare tuberculosis mortality in the major cities in the prewar "national defense" period, 1939–41, with the period of full participation in the war, 1942–44, and the last year of the war, 1945, the tuberculosis death ratios, the number of deaths from tuberculosis, and the number of deaths from all causes recorded for residents of these areas during these periods of time have been summarized in table 2 and in figure 2. For the 3-year periods 1939–41 and 1942–44, the average annual number of deaths are shown. Data for 1944 are included in the table to facilitate comparison with those for 1945.

These data show that the course of proportionate mortality from tuberculosis for the total population of the major cities was favorable during the years 1939 to 1945, the ratio of tuberculosis deaths to deaths from all causes having decreased for each of the four race-sex groups. Greater percentage declines were recorded for both white and nonwhite females (20.0 and 14.9 respectively) than for either white or nonwhite males (6.4 and 12.5 respectively), with white females showing the greatest, and white males the least, relative improvement.

In interpreting changes in tuberculosis proportionate mortality, it is important to bear in mind that a decrease in the death ratio indicates that mortality from this cause is increasing more slowly, or declining more rapidly, than is mortality from all causes, and does not necessarily reflect a "true" decrease in the incidence of mortality from tuberculosis as measured by the tuberculosis mortality rate. It is, therefore, necessary to consider the course of total mortality and the differences in the number of tuberculosis deaths, in addition to the

[7] Yerushalmy, J., and Silverman, C.: Tuberculosis Mortality in Communities of Different Size, American Review of Tuberculosis, vol. LI, no. 5 (May 1945).

changes seen in the tuberculosis death ratios. For example, the decrease in tuberculosis proportionate mortality noted for white males represented a very small decrease of 0.3 percent in the number of tuberculosis deaths (from 9,663, the average annual number of

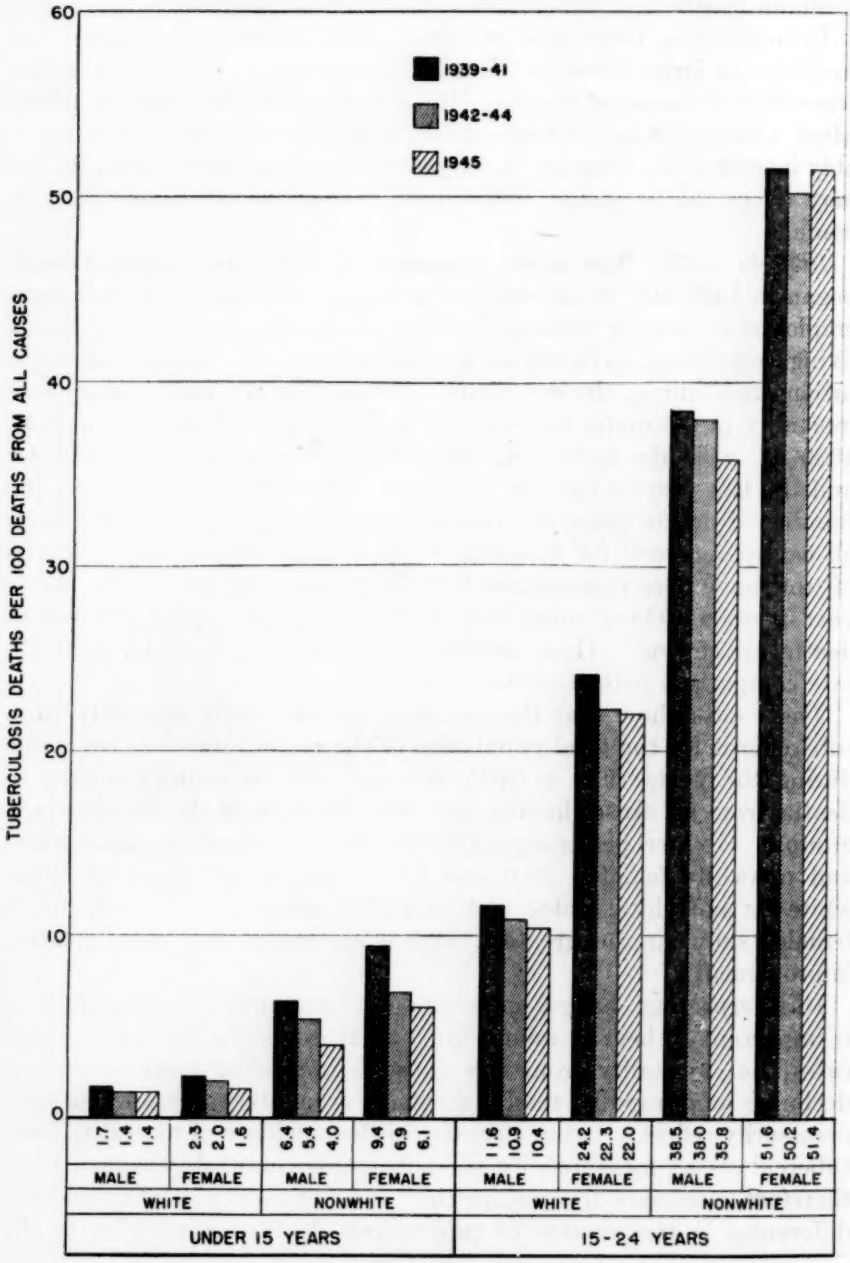

FIGURE 2.—Death ratios for tuberculosis (all forms) for residents of cities of 100,000 or more, by age, race, and sex: United States, 1939-41, 1942-44, 1945.

deaths during 1939–41, to 9,631 in 1945) relative to an increase of 7.3 percent in total mortality. Decreases in the number of deaths from tuberculosis and increases in the number of deaths from all causes from 1939–41 to 1945 were also recorded for the other three race-sex groups.

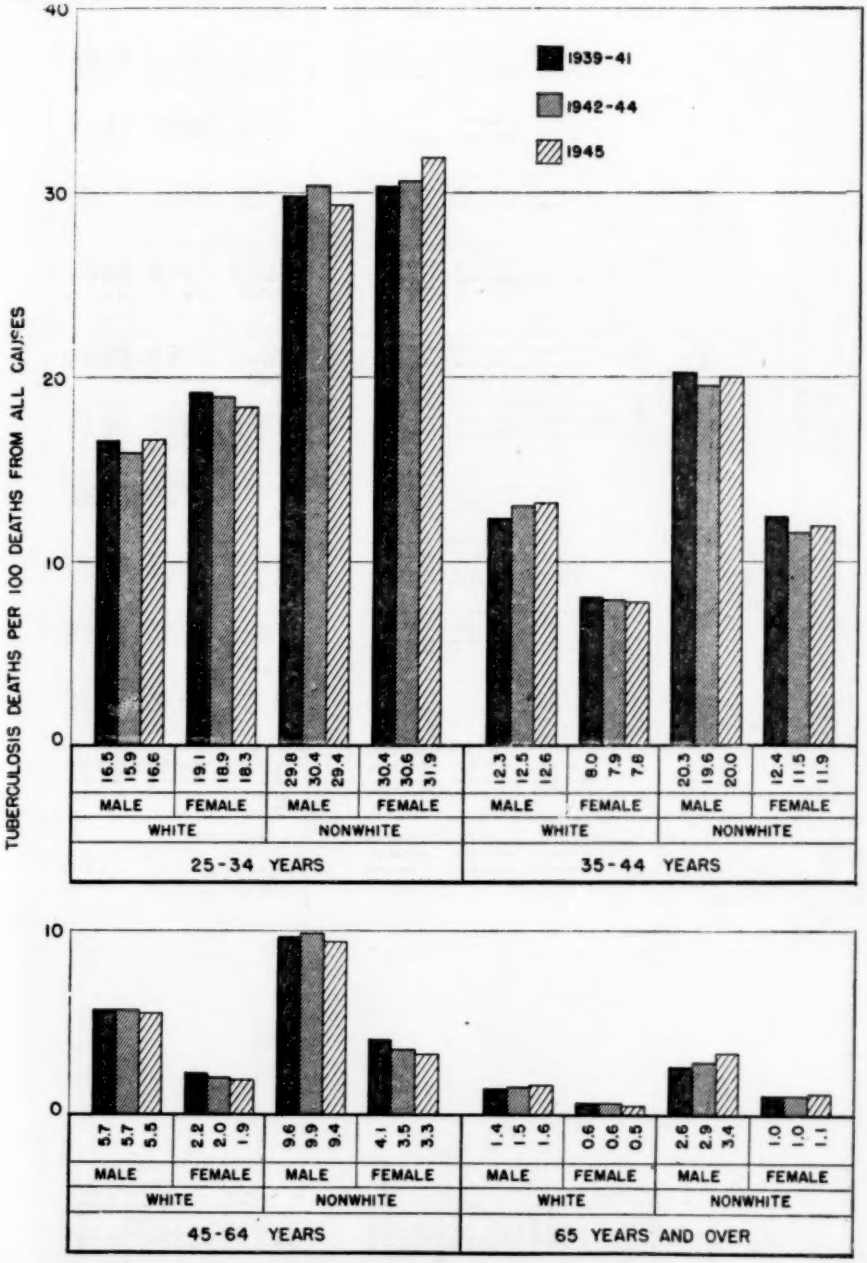

FIGURE 2.—Death ratios for tuberculosis (all forms) for residents of cities of 100,000 or more, by age, race, and sex: United States, 1939–41, 1942–44, 1945.—Continued

TABLE 2.—*Death ratios and number of deaths from tuberculosis (all forms) and number of deaths from all causes, by age, race, and sex, for cities of 100,000 or more: United States, 1939–41, 1942–44, 1944, and 1945*

[By place of residence. Ratios are the number of deaths from tuberculosis per 100 deaths from all causes]

Year and race	Total	Male							Female						
		All ages [1]	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	All ages [1]	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over
	Death ratios														
All races:															
1945	4.4	5.2	1.8	16.4	19.9	14.2	6.0	1.7	3.3	2.4	31.6	22.2	8.8	2.1	0.5
1944	4.5	5.3	2.0	17.9	20.1	14.5	6.1	1.6	3.5	2.8	31.5	22.1	8.8	2.1	.6
1942–44	4.6	5.4	2.0	17.3	19.6	14.0	6.2	1.6	3.6	2.8	31.1	22.2	8.9	2.2	.6
1939–41	5.0	5.7	2.5	17.7	19.9	14.1	6.2	1.5	4.1	3.6	32.5	22.2	9.1	2.5	.6
White: [2]															
1945	3.5	4.4	1.4	10.4	16.6	12.6	5.5	1.6	2.4	1.6	22.0	18.3	7.8	1.9	.5
1944	3.6	4.4	1.4	10.9	16.5	13.0	5.7	1.5	2.5	2.0	22.5	18.8	7.9	1.9	.6
1942–44	3.6	4.5	1.4	10.9	15.9	12.5	5.7	1.5	2.6	2.0	22.3	18.9	7.9	2.0	.6
1939–41	3.9	4.7	1.7	11.6	16.5	12.3	5.7	1.4	3.0	2.3	24.2	19.1	8.0	2.2	.6
Nonwhite: [2]															
1945	11.1	11.9	4.0	35.8	29.4	20.0	9.4	3.4	10.3	6.1	51.4	31.9	11.9	3.3	1.1
1944	11.5	12.5	5.4	39.2	30.1	19.9	9.7	2.6	10.5	6.7	49.4	30.0	11.4	3.3	1.1
1942–44	11.8	12.8	5.4	38.0	30.4	19.6	9.9	2.9	10.6	6.9	50.2	30.6	11.5	3.5	1.0
1939–41	12.9	13.6	6.4	38.5	29.8	20.3	9.6	2.6	12.1	9.4	51.6	30.4	12.4	4.1	1.0
	Deaths from tuberculosis (all forms)														
All races:															
1945	19,463	12,864	372	851	1,677	2,601	5,675	1,685	6,599	368	1,495	1,788	1,207	1,212	527
1944	19,873	12,982	432	961	1,689	2,647	5,716	1,531	6,891	450	1,545	1,871	1,233	1,219	573
1942–44 [4]	20,310	13,212	436	1,027	1,817	2,678	5,719	1,529	7,098	458	1,617	1,919	1,248	1,284	570
1939–41 [4]	20,953	13,195	478	1,129	2,106	2,782	5,357	1,337	7,758	517	1,867	2,079	1,321	1,396	576
White: [2]															
1945	13,753	9,631	232	412	1,027	1,823	4,634	1,500	4,122	194	700	1,046	782	927	473
1944	14,036	9,634	241	442	1,012	1,858	4,675	1,402	4,402	255	736	1,132	807	951	521
1942–44 [4]	14,322	9,756	244	495	1,096	1,867	4,668	1,382	4,566	259	792	1,179	819	996	520
1939–41 [4]	14,664	9,663	273	572	1,284	1,893	4,417	1,220	5,001	269	975	1,285	856	1,082	533
Nonwhite: [2]															
1945	5,710	3,233	140	439	650	778	1,041	185	2,477	174	795	742	425	285	54
1944	5,837	3,348	191	519	677	789	1,041	129	2,489	195	809	739	426	268	52
1942–44 [4]	5,988	3,456	192	532	721	811	1,051	147	2,532	199	825	740	429	288	50
1939–41 [4]	6,289	3,532	205	557	822	889	940	117	2,757	248	892	794	465	314	43

Deaths from all causes

	Deaths from all causes													
All races:														
1945	447,035	247,913	20,496	5,186	8,411	18,331	95,097	100,268	199,122	15,189	4,731	8,038	13,652	58,081	99,399
1944	442,915	244,079	21,155	5,381	8,397	18,313	93,294	97,383	198,836	15,973	4,906	8,475	13,956	57,624	97,852
1942–44 [4]	445,620	246,093	21,549	5,951	9,285	19,068	92,766	97,299	199,527	16,148	5,192	8,659	14,100	58,004	97,365
1939–41 [4]	421,901	231,583	19,174	6,364	10,558	19,773	86,785	88,823	190,318	14,350	5,753	9,348	14,447	56,393	89,976
White: [2]														
1945	395,727	220,636	16,991	3,959	6,202	14,445	84,069	94,867	175,091	12,349	3,183	5,715	10,075	49,467	94,279
1944	392,251	217,228	17,588	4,058	6,148	14,343	82,573	92,386	175,023	13,049	3,269	6,008	10,234	49,430	92,989
1942–44 [4]	394,755	219,012	18,007	4,551	6,911	14,931	82,178	92,285	175,743	13,277	3,550	6,240	10,362	49,787	92,479
1939–41 [4]	373,136	205,550	15,951	4,916	7,799	15,389	77,019	84,394	167,586	11,724	4,025	6,734	10,692	48,698	85,674
Nonwhite: [3]														
1945	51,308	27,277	3,505	1,227	2,209	3,886	11,028	5,401	24,031	2,840	1,548	2,323	3,577	8,614	5,120
1944	50,664	26,851	3,567	1,323	2,249	3,970	10,721	4,997	23,813	2,924	1,637	2,467	3,722	8,194	4,863
1942–44 [4]	50,865	27,081	3,542	1,400	2,374	4,137	10,588	5,014	23,784	2,871	1,642	2,419	3,738	8,217	4,886
1939–41 [4]	48,765	26,033	3,223	1,448	2,759	4,384	9,766	4,429	22,732	2,626	1,728	2,614	3,755	7,695	4,302

[1] Includes deaths for which age was not stated.

[2] Includes deaths of nonwhite residents of cities having small nonwhite populations (less than 20,000 or less than 10 percent according to the 1940 census).

[3] Based on data for only those cities in which the nonwhite population consitututes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

[4] Average annual number of deaths:

NOTE.—Data for Camden, Charlotte, and Sacramento, included for 1940–1945. Data for Dayton, by race, included for 1942–45.

Each age group did not share equally in the declines noted above. For both sexes, the largest relative decreases in proportionate mortality from tuberculosis were experienced at the youngest ages (under 15). Among white and nonwhite males 25–34 years and 35–44 years of age, and among nonwhite females 15–24 and 25–34 years of age, the tuberculosis death ratios remained generally stable, and the course of tuberculosis proportionate mortality for these age groups compared unfavorably with that for almost all other age groups, except 65 years of age and older. White females experienced the smallest relative decrease in tuberculosis proportionate mortality between the ages of 35 and 44.

In considering the relative declines in the tuberculosis death ratios from 1939–41 to 1945, a distinct difference between the sexes appears for the age groups 15–24 years and 45–64 years. The relative decrease in the ratio for males in the age group 15–24 (7.3 percent) exceeded that for the age group 45–64 (3.2 percent). Among females, on the other hand, proportionate mortality from tuberculosis decreased much more rapidly between the ages of 45 to 64 (16.0 percent) than in the age group 15–24 (2.8 percent). The decrease in the ratios from 1939–41 to 1945 noted for males 45–64 years of age resulted from a smaller relative increase in the number of deaths from tuberculosis (5.9 percent) than in the number of deaths from all causes (9.6 percent).

In contrast to the changes observed among persons in the age groups under 65 years, tuberculosis proportionate mortality was increasing among the oldest residents of the 92 cities. For white males, nonwhite males and nonwhite females, 65 years of age and over, increases were recorded in the number of deaths from tuberculosis and from all causes, and as seen in the rising death ratios, tuberculosis mortality was increasing more rapidly than was total mortality. Among white female residents in this age group, however, decreases in both the number of tuberculosis deaths and the death ratios may be observed.

Size of city and geographic area.—The relative importance of tuberculosis as a cause of death in different areas and in cities of different size should be considered in planning public health programs. In order to examine these factors, the data for the total white population of the 92 major cities, and for the total nonwhite population of the 40 cities for which statistics by race are available, have been consolidated in table 3 into four population-size groups and into four geographic regions. Death ratios adjusted for age [8] by city-size group for all regions, and by region for all sizes of cities, are also presented in the table and in figures 3 and 4. Figure 3 summarizes the data by population-size of city for all regions, and figure 4 summarizes those by region for cities of all sizes. Age-adjusted ratios for each city-size

[8] Adjusted on the basis of the age distribution of deaths from all causes among all residents of the 92 cities in 1945.

TABLE 3.—*Death ratios from tuberculosis (all forms) by race, sex, population-size of city, and geographic area, for cities of 100,000 or more: United States, 1945*

[By place of residence. Ratios are the number of deaths from tuberculosis per 100 deaths from all causes]

Race and population-size of city	Total		Male						Female					
			All areas		Northeast	Middle West	South	Far West	All areas		Northeast	Middle West	South	Far West
	Adjusted [2]	Unadjusted	Adjusted [2]	Unadjusted					Adjusted [2]	Unadjusted				
White: [1]														
Adjusted [2]	3.8		4.5		4.8	4.1	4.5	4.3	2.7		2.7	2.6	2.9	2.8
Unadjusted		3.5		4.4	4.6	4.0	4.6	4.3		2.4	2.2	2.3	2.8	2.5
1,000,000 or more	3.8	3.6	4.6	4.6	4.6	4.6		4.6	2.6	2.2	2.0	2.4		2.7
500,000–1,000,000	4.2	3.9	4.9	4.8	5.5	4.2	4.7	5.0	3.1	2.6	3.0	2.3	2.4	2.9
200,000–500,000	3.8	3.5	4.4	4.3	4.4	3.7	5.1	4.3	2.9	2.6	2.2	2.3	3.4	2.5
100,000–200,000	3.1	2.8	3.6	3.5	4.0	2.5	3.7	3.0	2.3	2.1	2.2	1.8	2.3	1.8
Nonwhite: [3]														
Adjusted [2]	7.0		8.4		10.5	8.5	6.8	10.8	5.3		6.6	5.5	4.2	6.7
Unadjusted		11.1		11.9	14.9	12.2	9.5	14.8		10.3	12.7	11.0	8.4	12.0
1,000,000 or more	8.5	13.9	10.1	14.8	15.1	14.2		14.9	6.5	12.9	12.8	13.6		10.2
500,000–1,000,000	7.7	11.6	9.3	12.7	13.7	9.8	13.9	14.6	5.6	10.2	11.4	8.3	10.6	20.6
200,000–500,000	5.6	8.9	6.6	8.9	15.5	11.3	7.5		4.4	8.9	14.9	9.3	8.3	
100,000–200,000	4.8	7.7	6.1	8.7	9.9	8.9	8.7		3.3	6.5	6.2	5.9	6.6	

[1] Based on data including deaths of nonwhite residents of cities having small nonwhite populations (less than 20,000 or less than 10 percent according to the 1940 census).

[2] Adjusted for age on the basis of the age distribution of deaths from all causes in 1945 among residents of cities with a population of 100,000 or more in 1940.

[3] Based on data for only those cities in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

NOTE.—The frequencies on which the unadjusted ratios are based are given in appendix table 1.

group within each of the regions have not been computed since the frequencies in each race-sex group become small when further classified by age and the ratios specific for age, race, and sex are subject to considerable error.

In figure 3, marked differences in the relative importance of tuberculosis as a cause of death appear among the four population-size groups. With the exception of cities of a million or greater population, the age-adjusted tuberculosis death ratio decreased with decreasing community-size for each of the four race-sex groups. Among

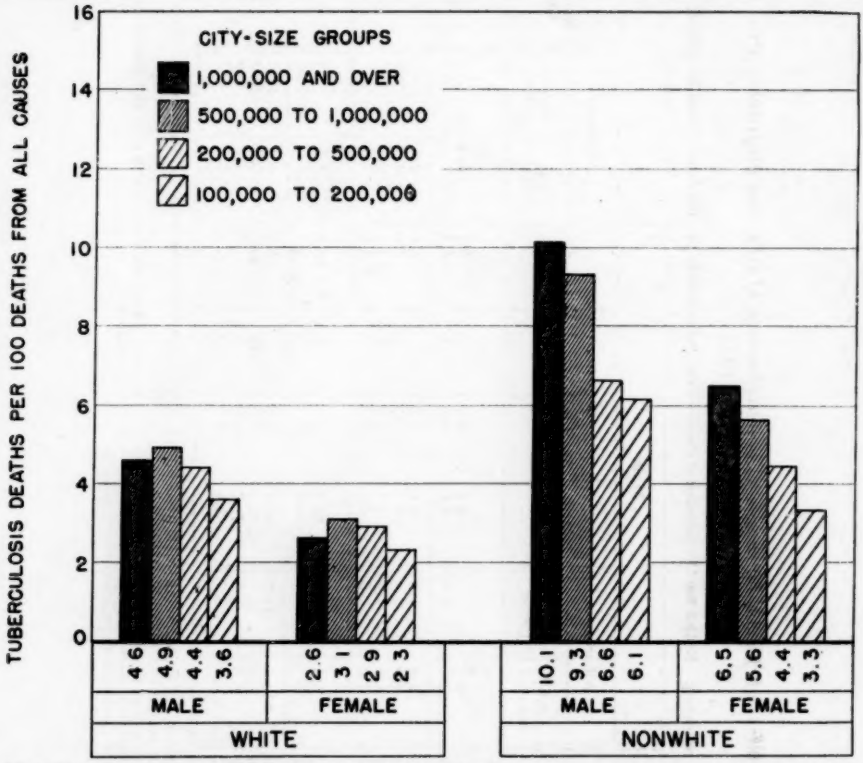

FIGURE 3.—Age-adjusted death ratios for tuberculosis (all forms) by race, sex, and population-size of city, for cities of 100,000 or more: United States, 1945. (By place of residence. Adjusted for age on the basis of the age distribution of deaths from all causes in 1945 among residents of cities with a population of 100,000 or more in 1940.)

white residents, tuberculosis caused a larger proportion of the total deaths in cities of 500,000 to one million than in cities of one million and over. For the nonwhite population, on the other hand, the reverse was true, and tuberculosis proportionate mortality decreased with successively smaller sizes of the cities. Whether these data indicate a true racial difference in relative mortality from tuberculosis associated with residence in the two largest city-size groups is difficult to determine since the data may also be influenced by differences in the geographic distribution of the white and the nonwhite populations in these two city-size groups.

When the tuberculosis death ratios are classified by geographic region [9] and adjusted for age, little variation is seen for the white race and the only consistent geographic difference to be discerned is the small advantage of the Middle West, which has the lowest age adjusted ratio for both sexes. (See fig. 4.) Among nonwhites, however, a distinct and consistent pattern can be observed, the ranking of the age adjusted tuberculosis death ratios by area being the same for males and females, with the southern cities apparently having the most favorable mortality experience.

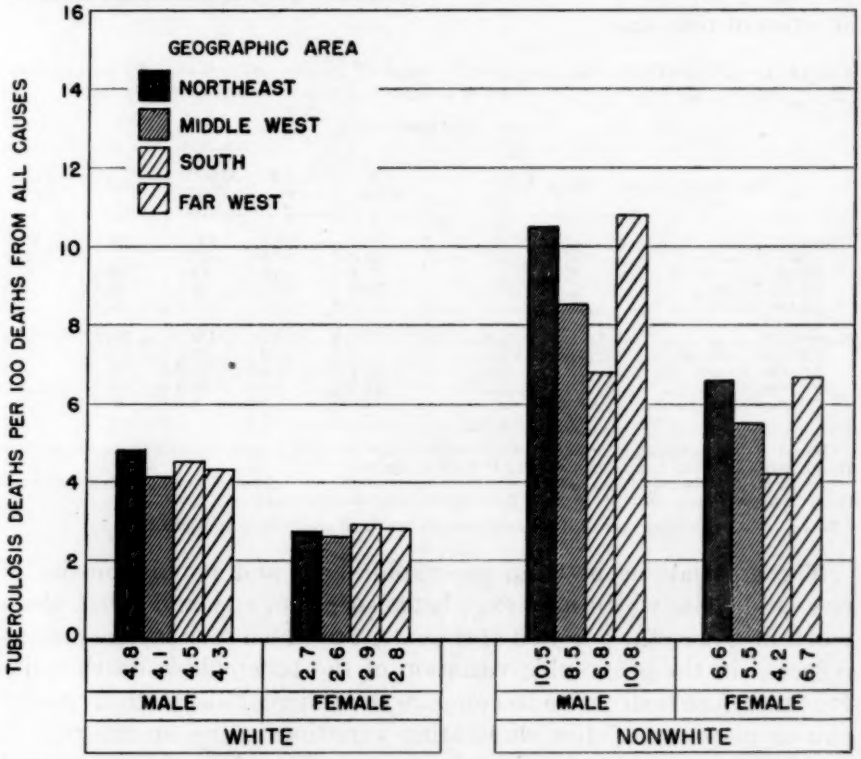

FIGURE 4.—Age-adjusted death ratios for tuberculosis (all forms) by race, sex, and geographic area, for cities of 100,000 or more: United States, 1945. (By place of residence. Adjusted for age on the basis of the age distribution of deaths from all causes in 1945 among residents of cities with a population of 100,000 or more in 1940.)

However, the tuberculosis death ratio for the group of cities in one geographic region may be presumed to be influenced by the distribution of deaths from all causes among the cities of different size in that region. The distribution of total deaths when classified by size of city is different in each of the four areas and varies most markedly for the nonwhite races. (See table 4.) Of the nonwhite deaths recorded

[9] These regions were formed by combination of the nine geographic divisions used by the Bureau of the Census, as follows: Northeast—New England and Middle Atlantic States; South—South Atlantic, East South Central, and West South Central States; Middle West—East North Central and West North Central States; Far West—Mountain and Pacific States.

for cities of 100,000 or greater population, 81.9 percent in the Northeast and 72.7 percent in the Far West were recorded for residents of cities of one million population and over, while the corresponding proportions for the white race were 57.3 percent and 33.0 percent, respectively. On the other hand, only 1.6 percent of all nonwhite deaths and 18.7 percent of all white deaths in the Northeast were recorded for residents of the smallest cities (100,000 to 200,000 population), while 29.3 percent of the nonwhite deaths and 28.5 percent of the white deaths in the southern cities were among residents of cities of that size.

TABLE 4.—*Percent distribution of deaths from all causes in each area by population-size of city and race for cities of 100,000 or more: United States, 1945*

[By place of residence]

Race and population-size of city	All areas	Northeast	Middle West	South	Far West
White [1]	100.0	100.0	100.0	100.0	100.0
1,000,000 and over	40.0	57.3	37.5	----	33.0
500,00–1,000,000	17.4	13.9	19.4	25.8	15.4
200,000–500,000	24.9	10.1	30.3	45.7	36.1
100,000–200,000	17.7	18.7	12.9	28.5	15.5
Nonwhite [2]	100.0	100.0	100.0	100.0	100.0
1,000,000 and over	36.8	81.9	48.5	----	72.7
500,000–1,000,000	21.4	10.6	22.7	26.4	27.3
200,000–500,000	27.5	5.9	24.3	44.3	----
100,000–200,000	14.3	1.6	4.5	29.3	----

[1] Based on data including deaths of nonwhite residents of cities having small nonwhite populations (less than 20,000 or less than 10 percent according to the 1940 census).

[2] Based on data for only those cities in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

NOTE.—The frequencies on which these proportions are based are given in appendix table 1.

The associations between geographic area and population-size of city, and those which may exist between size of city and tuberculosis mortality, raise the question of the extent to which such factors may be reflected in the geographic variation of the tuberculosis death ratio. It is therefore instructive to compare the tuberculosis death ratios for two or more areas after eliminating variation in the distribution of deaths from all causes by city-size group. Therefore, the unadjusted tuberculosis death ratios for each of the four race-sex groups for each region were adjusted for population-size on the basis of the distribution by population-size of city of deaths from all causes in 1945 in the group of cities having a population of 100,000 to one million.[10] Since there were no cities in the South with a population of one million

[10] To illustrate, the adjusted white male death ratio for the northeast cities of 100,000 to 1,000,000 population was computed in the following manner:

$$\text{Adjusted ratio} = \frac{r_1p_1}{100} + \frac{r_2p_2}{100} + \frac{r_3p_3}{100}$$

where r = tuberculosis death ratio for white male residents of cities of one population-size group in the Northeast, not adjusted for age, and

p = percent that deaths from all causes among residents of one city-size group forms of deaths among residents of all cities of 100,000–1,000,000.

The population-size groups 100,000–200,000, 200,000–500,000, and 500,000–1,000,000 are indicated by the subscripts 1, 2, and 3 respectively.

or greater in 1940, cities of this size were excluded from consideration. (Adjusted ratios for nonwhites were not computed for the Far West, since the number of nonwhite deaths in this area for cities under one million was small.) Ratios for cities of 100,000 to 1,000,000 population in each area adjusted for population-size of city are as follows:

	Northeast	*Middle West*	*South*	*Far West*
Male, white	4.6	3.5	4.6	4.1
Female, white	2.4	2.2	2.8	2.4
Male, nonwhite	13.4	10.2	9.7	---
Female, nonwhite	11.4	8.0	8.5	---

Comparison of these figures with the unadjusted ratios shown in table 3 indicates the effect of eliminating the largest cities and of holding constant the proportion of deaths in the remaining city-size groups. The greatest change appears for the Middle West. The better relative position of this area for the white population is more clearly seen, the difference between the South and the Middle West becomes small for nonwhite males, and the Middle West ratio for nonwhite females becomes smaller than the ratio for the South.

TABLE 5.—*Death ratios for tuberculosis (all forms) by race, for 92 cities of 100,000 or more: United States, 1945*

[By place of residence. Ratios are the number of deaths from tuberculosis per 100 deaths from all causes]

City	Population-size group (1940 census)	Geographic region	Death ratio		
			All races	White[1]	Nonwhite[1]
Akron, Ohio	200,000-500,000	Middle West	3.6	3.6	---
Albany, N. Y.	100,000-200,000	Northeast	4.0	4.0	---
Atlanta, Ga.	200,000-500,000	South	4.4	2.6	7.0
Baltimore, Md.	500,000-1,000,000	do	6.2	3.7	13.8
Birmingham, Ala.	200,000-500,000	do	5.6	2.9	8.5
Boston, Mass.	500,000-1,000,000	Northeast	5.1	4.8	11.3
Bridgeport, Conn.	100,000-200,000	do	3.7	3.7	---
Buffalo, N. Y.	500,000-1,000,000	do	5.1	5.1	---
Cambridge, Mass.	100,000-200,000	do	2.8	2.8	---
Camden, N. J.	100,000-200,000	do	4.3	3.7	8.2
Canton, Ohio	100,000-200,000	Middle West	1.4	1.4	---
Charlotte, N. C.	100,000-200,000	South	3.6	3.1	4.4
Chattanooga, Tenn.	100,000-200,000	do	7.5	5.9	10.2
Chicago, Ill.	1,000,000 and over	Middle West	4.7	3.4	13.2
Cincinnati, Ohio	200,000-500,000	do	5.1	3.5	14.5
Cleveland, Ohio	500,000-1,000,000	do	5.0	3.9	12.4
Columbus, Ohio	200,000-500,000	do	4.0	2.8	12.5
Dallas, Tex.	200,000-500,000	South	4.3	3.4	7.3
Dayton, Ohio	200,000-500,000	Middle West	3.8	3.3	8.0
Denver, Colo.	200,000-500,000	Far West	3.6	3.6	---
Des Moines, Iowa	100,000-200,000	Middle West	2.0	2.0	---
Detroit, Mich.	1,000,000 and over	do	5.9	4.3	15.6
Duluth, Minn.	100,000-200,000	do	1.5	1.5	---
Elizabeth, N. J.	100,000-200,000	Northeast	2.9	2.9	---
Erie, Pa.	100,000-200,000	do	2.4	2.4	---
Fall River, Mass.	100,000-200,000	do	3.2	3.2	---
Flint, Mich.	100,000-200,000	Middle West	3.1	3.1	---
Fort Wayne, Ind.	100,000-200,000	do	3.4	3.4	---
Fort Worth, Tex.	100,000-200,000	South	3.1	2.5	5.8
Gary, Ind.	100,000-200,000	Middle West	5.8	3.5	11.3
Grand Rapids, Mich.	100,000-200,000	do	1.3	1.3	---
Hartford, Conn.	100,000-200,000	Northeast	4.3	4.3	---
Houston, Tex.	200,000-500,000	South	5.0	4.4	6.6

See footnotes at end of table.

PUBLIC

TABLE 5.—*Death ratios for tuberculosis (all forms) by race, for 92 cities of 100,000 or more: United States, 1945*—Continued

City	Population-size group (1940 census)	Geographic region	Death ratio		
			All races	White[1]	Nonwhite[2]
Indianapolis, Ind	200,000–500,000	Middle West	3.5	2.7	7.7
Jacksonville, Fla	100,000–200,000	South	4.9	2.0	8.5
Jersey City, N. J	200,000–500,000	Northeast	5.2	5.2	
Kansas City, Kans	100,000–200,000	Middle West	2.2	2.0	3.0
Kansas City, Mo	200,000–500,000	do	3.5	2.7	8.0
Knoxville, Tenn	100,000–200,000	South	2.8	2.7	3.4
Long Beach, Calif	100,000–200,000	Far West	1.7	1.7	
Los Angeles, Calif	1,000,000 and over	do	4.3	3.8	12.7
Louisville, Ky	200,000–500,000	South	5.4	3.9	11.2
Lowell, Mass	100,000–200,000	Northeast	2.4	2.4	
Memphis, Tenn	200,000–500,000	South	4.6	3.2	6.1
Miami, Fla	100,000–200,000	do	5.5	3.5	13.2
Milwaukee, Wis	500,000–1,000,000	Middle West	3.4	3.4	
Minneapolis, Minn	200,000–500,000	do	2.3	2.3	
Nashville, Tenn	100,000–200,000	South	4.2	3.7	5.1
Newark, N. J	200,000–500,000	Northeast	4.7	2.8	15.2
New Bedford, Mass	100,000–200,000	do	3.6	3.6	
New Haven, Conn	100,000–200,000	do	2.3	2.3	
New Orleans, La	200,000–500,000	South	6.2	4.8	8.9
New York, N. Y	1,000,000 and over	Northeast	4.5	3.5	15.2
Norfolk, Va	100,000–200,000	South	5.4	3.1	8.3
Oakland, Calif	200,000–500,000	Far West	3.7	3.7	
Oklahoma City, Okla	200,000–500,000	South	3.3	3.3	
Omaha, Nebr	200,000–500,000	Middle West	2.7	2.7	
Paterson, N. J	100,000–200,000	Northeast	2.6	2.6	
Peroia, Ill	100,000–200,000	Middle West	2.3	2.3	
Philadelphia, Pa	1,000,000 and over	Northeast	4.8	3.4	12.0
Pittsburgh, Pa	500,000–1,000,000	do	4.3	3.0	13.4
Portland, Oreg	200,000–500,000	Far West	2.9	2.9	
Providence, R. I	200,000–500,000	Northeast	3.0	3.0	
Reading, Pa	100,000–200,000	do	3.3	3.3	
Richmond, Va	100,000–200,000	South	4.9	3.1	8.1
Rochester, N. Y	200,000–500,000	Northeast	3.6	3.6	
Sacramento, Calif	100,000–200,000	Far West	4.9	4.9	
St. Louis, Mo	500,000–1,000,000	Middle West	3.5	2.8	6.7
St. Paul, Minn	200,000–500,000	do	2.5	2.5	
Salt Lake City, Utah	100,000–200,000	Far West	1.8	1.8	
San Antonio, Tex	200,000–500,000	South	7.9	7.9	
San Diego, Calif	200,000–500,000	Far West	3.4	3.4	
San Francisco, Calif	500,000–1,000,000	do	4.8	4.2	16.1
Scranton, Pa	100,000–200,000	Northeast	3.9	3.9	
Seattle, Wash	200,000–500,000	Far West	3.9	3.9	
Somerville, Mass	100,000–200,000	Northeast	2.5	2.5	
South Bend, Ind	100,000–200,000	Middle West	3.2	3.2	
Spokane, Wash	100,000–200,000	Far West	1.8	1.8	
Springfield, Mass	100,000–200,000	Northeast	2.0	2.0	
Syracuse, N. Y	200,000–500,000	do	2.1	2.1	
Tacoma, Wash	100,000–200,000	Far West	2.5	2.5	
Tampa, Fla	100,000–200,000	South	3.7	2.4	7.2
Toledo, Ohio	200,000–500,000	Middle West	4.8	4.8	
Trenton, N. J	100,000–200,000	Northeast	3.7	3.7	
Tulsa, Okla	100,000–200,000	South	3.7	3.3	6.5
Utica, N. Y	100,000–200,000	Northeast	3.3	3.3	
Washington, D. C	500,000–1,000,000	South	6.4	3.7	11.1
Wichita, Kans	100,000–200,000	Middle West	1.6	1.6	
Wilmington, Del	100,000–200,000	South	3.4	2.5	8.2
Worcester, Mass	100,000–200,000	Northeast	3.2	3.2	
Yonkers, N. Y	100,000–200,000	do	2.5	2.5	
Youngstown, Ohio	100,000–200,000	Middle West	2.1	2.1	

[1] For cities having small nonwhite populations (less than 20,000 or less than 10 percent of the total population according to the 1940 census) the death ratios for all races are used to approximate those for the white population.

[2] Ratios shown for the nonwhite races are for the cities in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

NOTE.—The numbers of tuberculosis deaths used in computing these death ratios are shown in appendix tables 2–4.

Tuberculosis mortality in each of the 92 cities.—The tuberculosis death ratios[11] for the individual cities of over 100,000 population display inter-city variation in 1945 similar to that for earlier years (table 5). The range of the tuberculosis death ratios for the 92 cities for all races in 1945 was from 1.3 to 7.9 per 100 deaths from all causes, with a median value of 3.6. For the white population alone, the range was the same, but 72 of the 92 cities had ratios between 2.0 and 3.9. The median was 3.2. The ratios for nonwhites in the 40 cities for which data by race were available were widely distributed, varying from 3.0 to 16.1, with a median of 8.5.

The tuberculosis death ratio for the total population of the 92 cities showed a small decrease from 4.5 in 1944 to 4.4 in 1945, and only a few of the changes in the ratios of the individual cities between these two years may be considered statistically significant. Between 1944 and 1945 the tuberculosis death ratios for all races increased by a statistically significant[12] amount in four cities—Fort Wayne, Gary, New Orleans, and Norfolk; for whites[13] in two cities—New Orleans and Norfolk; and for nonwhites, in two cities—Gary and Norfolk. Significant decreases were found in the ratios for Memphis, New Haven, and Peoria for all races; for Birmingham and Tampa for whites[13]; and for Memphis and St. Louis for nonwhites.

With the availability of the data for 1945 the record of the mortality experience for the war period 1942–45 becomes complete. In table 6 are given the tuberculosis death ratios for each of the 92 cities by race for the war period 1942–45, and the immediate prewar period 1939–41, and the corresponding rank numbers. Rank number 1 was assigned to that city in each list which had the lowest death ratio, and the cities were numbered in ascending order of their death ratios to 92 in the arrays for all races and whites, and to 39 in those for nonwhites.

The lowest death ratios in the listings for all races and whites were 1.5 in both periods, while the maximum ratios were 11.0 in 1939–41 and 9.1 in 1942–45. The median value of the death ratios for all races in 1939–41 was 4.2, while the first and third quartile values were 3.2 and 5.5, respectively. The comparable figures in 1942–45 were 3.7, 3.0, and 4.8. These values for the all races lists and the corresponding ones for whites and nonwhites follow on page 20.

[11] These death ratios are not shown adjusted for age because it was found that adjustment resulted in very little change as compared with the unadjusted values.

[12] A difference equal to or greater than twice the standard error of the difference was considered statistically significant.

[13] Only the cities for which deaths of whites and nonwhites were tabulated separately were considered.

	All races		White		Nonwhite	
	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41
First quartile	3.0	3.2	2.8	3.0	8.1	9.4
Median	3.7	4.2	3.3	3.5	9.4	11.3
Third quartile	4.8	5.5	3.7	4.2	13.1	13.8

In most cities the death ratios decreased between the two periods or remained the same. The ratios for a few cities, however, showed an increase during the war years over the prewar period, and these were tested for statistical significance. The only increases in the tuberculosis death ratios between 1939–41 and 1942–45 which were at the significant level were for the following cities: for all races—Boston, Buffalo, and Louisville; for whites [13a]—Boston and Louisville; and for nonwhites—Louisville.

TABLE 6.—*Death ratios and rank numbers for tuberculosis (all forms) by race, for 92 cities of 100,000 or more: United States, 1939–41 and 1942–45*

[By place of residence. Ratios are the number of deaths from tuberculosis per 100 deaths from all causes]

City	Ratios						Rank					
	All races		White [1]		Nonwhite [2]		All races		White		Nonwhite	
	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41
Akron, Ohio	3.3	3.0	3.3	3.0	------	------	30	19	41	22	------	------
Albany, N. Y	3.6	3.5	3.6	3.5	------	------	40	28	60	42	------	------
Atlanta, Ga	5.5	6.7	3.0	3.3	8.5	10.0	80	81	31	36	14	14
Baltimore, Md	6.3	6.7	3.9	4.1	13.2	14.2	87	81	78	62	31	31
Birmingham, Ala	6.3	6.8	3.2	3.5	9.2	9.8	87	84	37	42	19	12
Boston, Mass	5.0	4.7	4.6	4.3	13.1	12.9	71	59	83	71	30	25
Bridgeport, Conn	3.6	3.6	3.6	3.6	------	------	40	31	60	49	------	------
Buffalo, N. Y	4.8	4.2	4.8	4.2	------	------	67	44	87	67	------	------
Cambridge, Mass	3.7	3.8	3.7	3.8	------	------	45	33	66	53	------	------
Camden, N. J	4.2	[3] 4.4	3.3	[3] 3.5	9.2	[3] 9.9	56	51	41	42	18	13
Canton, Ohio	2.6	4.1	2.6	4.1	------	------	13	39	16	62	------	------
Charlotte, N. C	3.3	[3] 4.6	2.5	[3] 2.4	4.4	[3] 7.0	30	56	14	9	2	1
Chattanooga, Tenn	7.8	8.9	5.8	6.1	11.0	12.4	91	91	90	90	25	23
Chicago, Ill	4.9	5.7	3.6	4.3	13.6	16.2	70	74	60	71	33	35
Cincinnati, Ohio	5.4	5.1	3.6	3.3	15.3	15.5	78	62	60	36	35	32
Cleveland, Ohio	5.1	5.5	3.8	4.0	14.0	16.6	73	69	73	57	34	36
Columbus, Ohio	4.0	4.3	2.9	3.0	10.6	11.9	52	47	27	22	24	22
Dallas, Tex	4.7	5.6	3.8	4.9	7.6	7.7	64	72	73	83	7	4
Dayton, Ohio [4]	4.6	5.5	4.6	5.5	------	------	59	69	83	88	------	------
Denver, Colo	3.8	4.5	3.8	4.5	------	------	51	54	73	77	------	------
Des Moines, Iowa	1.8	2.2	1.8	2.2	------	------	4	5	4	5	------	------
Detroit, Mich	5.9	6.0	4.3	4.5	16.0	15.9	84	78	82	77	38	34
Duluth, Minn	1.8	2.3	1.8	2.3	------	------	4	8	4	8	------	------
Elizabeth, N. J	2.8	3.9	2.8	3.9	------	------	17	34	22	55	------	------
Erie, Pa	3.0	3.3	3.0	3.3	------	------	23	25	31	36	------	------
Fall River, Mass	3.7	4.1	3.7	4.1	------	------	45	39	66	62	------	------
Flint, Mich	2.7	3.1	2.7	3.1	------	------	16	22	20	28	------	------
Fort Wayne, Ind	3.1	3.7	3.1	3.7	------	------	25	32	33	51	------	------
Fort Worth, Tex	3.6	4.6	3.3	4.0	5.1	7.4	40	56	41	57	3	2
Gary, Ind	5.3	7.2	3.4	5.0	10.1	13.1	77	89	50	84	23	27
Grand Rapids, Mich	1.6	1.5	1.6	1.5	------	------	2	1	2	1	------	------
Hartford, Conn	3.7	3.5	3.7	3.5	------	------	45	28	66	42	------	------
Houston, Tex	5.6	7.0	4.8	6.0	7.7	9.2	81	87	87	89	9	9
Indianapolis, Ind	4.0	4.3	2.9	3.0	9.4	10.7	52	47	27	22	20	18
Jacksonville, Fla	5.7	7.1	2.6	2.8	9.4	11.8	83	88	16	15	20	21
Jersey City, N. J	5.2	5.2	5.2	5.2	------	------	75	65	89	85	------	------
Kansas City, Kans	3.0	4.1	2.8	3.1	4.0	7.4	23	39	22	28	1	2
Kansas City, Mo	3.6	4.3	2.7	3.2	8.4	10.2	40	47	20	30	13	15
Knoxville, Tenn	4.0	5.9	3.5	4.5	6.2	10.5	52	76	55	77	4	17
Long Beach, Calif	1.8	2.2	1.8	2.2	------	------	4	5	4	5	------	------

See footnotes at end of table.

[13a] See footnote 13 on page 19.

TABLE 6.—*Death ratios and rank numbers for tuberculosis (all forms) by race, for 92 cities of 100,000 or more: United States, 1939–41 and 1942–45*—Continued

[By place of residence. Ratios are the number of deaths from tuberculosis per 100 deaths from all causes]

City	Ratios						Rank					
	All races		White [1]		Nonwhite [2]		All races		White		Nonwhite	
	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41	1942–45	1939–41
Los Angeles, Calif.	4.6	5.0	4.1	4.4	12.6	13.8	59	60	80	73	28	30
Louisville, Ky.	5.0	4.0	3.7	2.9	9.7	8.3	71	36	66	19	22	6
Lowell, Mass.	2.6	2.8	2.6	2.8	------	------	13	14	16	15	------	------
Memphis, Tenn.	5.9	7.9	3.5	4.2	8.3	11.3	84	90	55	67	11	20
Miami, Fla.	5.6	5.6	3.3	3.0	13.5	13.0	81	72	41	22	32	26
Milwaukee, Wis.	3.7	4.0	3.7	4.0	------	------	45	36	66	57	------	------
Minneapolis, Minn.	2.3	2.1	2.3	2.1	------	------	10	4	10	4	------	------
Nashville, Tenn.	5.1	5.8	3.8	4.4	7.2	8.0	73	75	73	73	5	5
Newark, N. J.	5.2	5.9	3.3	3.8	16.3	18.8	75	76	41	53	39	39
New Bedford, Mass.	3.3	4.4	3.3	4.4	------	------	30	51	41	73	------	------
New Haven, Conn.	2.9	3.0	2.9	3.0	------	------	21	19	27	22	------	------
New Orleans, La.	5.9	6.2	4.2	4.6	8.8	9.0	84	79	81	80	16	8
New York, N. Y.	4.6	5.1	3.6	4.0	15.7	17.4	59	62	60	57	36	37
Norfolk, Va.	4.8	6.8	2.3	3.5	8.1	11.0	67	84	10	42	10	19
Oakland, Calif.	3.4	3.3	3.4	3.3	------	------	36	25	50	36	------	------
Oklahoma City, Okla.	3.5	4.2	3.5	4.2	------	------	39	44	55	67	------	------
Omaha, Nebr.	2.8	3.2	2.8	3.2	------	------	17	23	22	30	------	------
Paterson, N. J.	3.2	2.9	3.2	2.9	------	------	27	17	37	19	------	------
Peoria, Ill.	2.8	2.4	2.8	2.4	------	------	17	9	22	9	------	------
Philadelphia, Pa.	4.8	5.2	3.3	3.7	12.6	13.7	67	65	41	51	28	29
Pittsburgh, Pa.	4.3	4.6	3.1	3.5	12.2	13.2	57	56	33	42	27	28
Portland, Oreg.	2.6	2.6	2.6	2.6	------	------	13	11	16	12	------	------
Providence, R. I.	3.4	3.4	3.4	3.4	------	------	36	27	50	41	------	------
Reading, Pa.	3.4	4.4	3.4	4.4	------	------	36	51	50	73	------	------
Richmond, Va.	5.4	5.5	3.4	3.3	8.8	8.5	78	69	50	36	16	7
Rochester, N. Y.	3.1	3.0	3.1	3.0	------	------	25	19	33	22	------	------
Sacramento, Calif.	6.3	[3] 6.7	6.3	[3] 6.7	------	------	87	81	91	91	------	------
St. Louis, Mo.	4.1	4.5	3.1	3.2	8.6	10.2	55	54	33	30	15	15
St. Paul, Minn.	2.8	2.8	2.8	2.8	------	------	17	14	22	15	------	------
Salt Lake City, Utah	1.5	2.0	1.5	2.0	------	------	1	2	1	2	------	------
San Antonio, Tex.	9.1	11.0	9.1	11.0	------	------	92	92	92	92	------	------
San Diego, Calif.	3.7	4.1	3.7	4.1	------	------	45	39	66	62	------	------
San Francisco, Calif.	4.6	5.1	4.0	4.6	15.9	17.5	59	62	79	80	37	38
Scranton, Pa.	3.6	3.5	3.6	3.5	------	------	40	28	60	42	------	------
Seattle, Wash.	3.7	3.9	3.7	3.9	------	------	45	34	66	55	------	------
Somerville, Mass.	2.4	2.7	2.4	2.7	------	------	11	13	12	14	------	------
South Bend, Ind.	3.2	4.0	3.2	4.0	------	------	27	36	37	57	------	------
Spokane, Wash.	1.7	2.0	1.7	2.0	------	------	3	2	3	2	------	------
Springfield, Mass.	2.2	2.6	2.2	2.6	------	------	8	11	8	12	------	------
Syracuse, N. Y.	2.2	2.9	2.2	2.9	------	------	8	17	8	19	------	------
Tacoma, Wash.	2.9	3.2	2.9	3.2	------	------	21	23	27	30	------	------
Tampa, Fla.	4.6	5.0	3.5	3.2	7.5	9.4	59	60	55	30	6	10
Toledo, Ohio	4.7	5.4	4.7	5.4	------	------	64	68	85	87	------	------
Trenton, N. J.	4.7	5.2	4.7	5.2	------	------	64	65	85	85	------	------
Tulsa, Okla.	4.4	6.5	3.8	4.8	8.3	15.5	58	80	73	82	11	32
Utica, N. Y.	2.5	2.2	2.5	2.2	------	------	12	5	14	5	------	------
Washington, D. C.	6.4	6.9	3.5	3.6	11.5	12.4	90	86	55	49	26	23
Wichita, Kans.	2.0	2.5	2.0	2.5	------	------	7	10	7	11	------	------
Wilmington, Del.	3.3	4.3	2.4	3.2	7.6	9.4	30	47	12	30	7	10
Worcester, Mass.	3.2	2.8	3.2	2.8	------	------	27	14	37	15	------	------
Yonkers, N. Y.	3.3	4.1	3.3	4.1	------	------	30	39	41	62	------	------
Youngstown, Ohio	3.3	4.2	3.3	4.2	------	------	30	44	41	67	------	------

[1] For cities having small non-white populations (less than 20,000 or less than 10 percent of the total population according to the 1940 census) the death ratios for all races are used to approximate those for the white population.

[2] Ratios shown for the nonwhite races are for the cities in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

[3] Data for 1940–41 only.

[4] The death ratios for Dayton are given for all races only, since data by race were not available for the full period 1939–41. To retain comparability between the two periods, the ratios for 1942–45 are shown only for all races, even though data by race are available for this later period. (See appendix, tables 3 and 4 of this report and corresponding tables in earlier reports of this series.)

Each of these significant increases in the tuberculosis death ratios represents an increase in both the average annual number of tuberculosis deaths and the number of deaths from all causes, and in each case the former figure increased relatively more than the latter. For instance, in Buffalo the average annual number of tuberculosis deaths for 1939–41 was 277, while during the period 1942–45 it was 330, an increase of 53 or 19.1 percent; while the corresponding figures for the deaths from all causes were 6,538 and 6,815, an increase of 4.2 percent. In Buffalo for all races, and in Boston for all races and for whites, the increases in the tuberculosis proportionate mortality were due entirely to changes in the death ratios for the male population, while the tuberculosis death ratios for females stayed almost constant between the two periods. In Louisville the death ratios increased about equally for both sex groups in the white populations, but among nonwhites a greater increase was observed in the tuberculosis death ratios for females between the prewar and war years than in the ratios for males.

Examination of the two rank numbers for each city in each race group shows that the death ratios for most cities kept approximately the same position relative to the entire array of ratios, while rather large changes occurred in the rank order of the death ratios for other cities. It is of interest to note those cities for which there was a change in rank numbers between the two periods equal to one quartile—i. e., 23 places in the lists for all races and whites, and 10 places in the lists for nonwhites. In the list for all races, the rank order of five cities showed shifts of this magnitude between 1939–41 and 1942–45. Three of these changes were downward to relatively more favorable positions in the later period: Canton, 39th in 1939–41 and 13th in 1942–45; Charlotte, 56th position to 30th; and Knoxville, 76th to 52nd. On the other hand, the rank number for two cities was higher in 1942–45 than in 1939–41 by at least 23 places. Buffalo was in 44th place in the prewar list and in 67th in 1942–45, while Louisville was 36th and 71st respectively. These were two of the three cities for which the increases in the death ratios between the two periods were found to be significant.

In the white list the rank numbers of seven cities—Canton, Elizabeth, Gary, New Bedford, Norfolk, Reading, and Youngstown—were lower in 1939–41 than in 1942–45 by at least one quartile; and those for Cincinnati, Hartford, Louisville, and Tampa were higher. In the nonwhite list, changes in the rank order of the death ratios of 10 places or more were found for only 3 cities—decreases for Knoxville and Tulsa, and an increase for Louisville.

APPENDIX TABLE 1.—*Number of deaths from tuberculosis (all forms) and from all causes by race, sex, population-size group, and geographic area, for cities of 100,000 or more: United States, 1945*

[By place of residence. Excludes deaths among armed forces overseas]

Race and population-size of city	Total	Male					Female				
		All areas	North-east	Middle West	South	Far West	All areas	North-east	Middle West	South	Far West
	Deaths from tuberculosis (all forms)										
White,[1] total	13,753	9,631	4,110	2,727	1,372	1,422	4,122	1,632	1,224	647	619
1,000,000 or more	5,621	4,052	2,372	1,195	------	485	1,569	860	480	------	229
500,000–1,000,000	2,655	1,859	687	556	351	265	796	305	238	149	104
200,000–500,000	3,483	2,373	402	752	703	516	1,110	161	381	348	220
100,000–200,000	1,994	1,347	649	224	318	156	647	306	125	150	66
Nonwhite,[2] total	5,710	3,233	1,023	938	1,114	158	2,477	766	744	880	87
1,000,000 or more	2,620	1,471	844	522	------	105	1,149	638	450	------	61
500,000–1,000,000	1,274	764	107	171	433	53	510	67	127	290	26
200,000–500,000	1,250	656	61	216	379	------	594	55	148	391	------
100,000–200,000	566	342	11	29	302	------	224	6	19	199	------
	Deaths from all causes										
White,[1] total	395,727	220,636	89,106	68,895	29,641	32,994	175,091	73,842	53,762	22,915	24,572
1,000,000 or more	158,252	87,767	51,139	26,167	------	10,461	70,485	42,162	19,804	------	8,519
500,000–1,000,000	68,897	38,588	12,532	13,386	7,401	5,269	30,309	10,142	10,399	6,175	3,603
200,000–500,000	98,450	55,297	9,048	20,421	13,716	12,112	43,153	7,488	16,698	10,278	8,689
100,000–200,000	70,128	38,984	16,387	8,921	8,524	5,152	31,144	14,050	6,871	6,462	3,761
Nonwhite,[2] total	51,308	27,277	6,878	7,661	11,669	1,069	24,031	6,055	6,767	10,484	725
1,000,000 or more	18,901	9,972	5,594	3,673	------	705	8,929	4,999	3,331	------	599
500,000–1,000,000	10,980	5,998	780	1,743	3,111	364	4,982	590	1,525	2,741	126
200,000–500,000	14,090	7,398	393	1,920	5,085	------	6,692	369	1,588	4,735	------
100,000–200,000	7,337	3,909	111	325	3,473	------	3,428	97	323	3,008	------

[1] Includes deaths of nonwhite residents of cities having small nonwhite populations (less than 20,000 or less than 10 percent according to the 1940 census).

[2] Based on data for only those cities in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

APPENDIX TABLE 2.—*Number of deaths from tuberculosis (all forms), for all races, by sex and age, for 92 cities of 100,000 or more: United States, 1945*

[By place of residence. Excludes deaths among armed forces overseas]

City	Total	Male								Female							
		All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated	All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated
Total	19,463	12,864	372	851	1,677	2,601	5,675	1,685	3	6,599	368	1,495	1,788	1,207	1,212	527	2
Akron, Ohio	84	54	1	1	10	9	25	8	----	30	3	7	7	8	3	2	----
Albany, N. Y	68	46	----	3	5	10	23	5	----	22	----	5	6	3	6	2	----
Atlanta, Ga	174	84	6	11	21	16	20	10	----	90	7	26	22	19	13	3	----
Baltimore, Md	682	430	19	46	63	99	165	38	----	252	20	67	70	49	37	9	----
Birmingham, Ala	170	87	3	13	22	15	27	7	----	83	10	29	20	13	7	4	----
Boston, Mass	500	359	7	8	31	73	185	55	----	141	1	21	41	26	29	23	----
Bridgeport, Conn	64	46	1	1	7	8	22	7	----	18	1	3	3	3	6	2	----
Buffalo, N. Y	340	224	3	14	30	42	106	29	----	116	10	25	36	19	17	9	----
Cambridge, Mass	41	27	----	1	3	6	16	1	----	14	----	2	4	2	4	2	----
Camden, N. J	62	43	----	4	5	4	20	10	----	19	2	4	4	3	2	4	----
Canton, Ohio	16	8	----	1	1	----	5	1	----	8	1	1	1	1	3	1	----
Charlotte, N. C	35	26	1	1	3	11	5	5	----	9	----	2	4	1	1	1	----
Chattanooga, Tenn	124	77	1	8	14	20	25	9	----	47	2	13	15	3	12	2	----
Chicago, Ill	1,823	1,175	30	97	175	258	514	101	----	648	40	174	184	116	110	24	----
Cincinnati, Ohio	330	215	7	19	36	36	96	21	----	115	7	37	20	25	17	9	----
Cleveland, Ohio	500	324	3	23	47	55	161	35	----	176	9	32	47	34	41	13	----
Columbus, Ohio	165	99	4	9	10	27	39	10	----	66	1	19	16	10	14	6	----
Dallas, Tex	133	88	2	8	12	13	38	15	----	45	4	17	12	3	5	4	----
Dayton, Ohio	105	62	2	3	8	11	25	13	----	43	3	11	11	9	5	4	----
Denver, Colo	148	100	5	6	8	22	41	18	----	48	2	5	12	12	12	5	----
Des Moines, Iowa	35	25	----	1	7	4	10	3	----	10	----	5	2	----	2	1	----
Detroit, Mich	824	542	13	42	68	123	248	48	----	282	28	83	81	42	37	11	----
Duluth, Minn	16	9	1	----	----	----	5	3	----	7	1	----	1	1	3	1	----
Elizabeth, N. J	32	22	----	2	4	4	12	----	----	10	----	2	2	2	4	----	----
Erie, Pa	32	23	1	3	5	4	8	2	----	9	2	3	2	----	----	2	----
Fall River, Mass	48	29	5	1	2	6	9	6	----	19	3	4	6	3	3	----	----
Flint, Mich	41	26	----	1	4	2	15	4	----	15	2	1	5	4	2	1	----
Fort Wayne, Ind	48	30	2	8	3	3	10	4	----	18	1	----	6	1	7	3	----
Fort Worth, Tex	63	36	3	3	5	9	11	5	----	27	1	5	5	3	7	6	----
Gary, Ind	67	47	2	6	6	4	26	2	1	20	3	7	4	3	3	----	----

Grand Rapids, Mich	23	13			1	3	7	2		10		2	3	1	2	2	
Hartford, Conn	78	54	2	2	7	8	28	7		24	3	4	5	6	3	3	
Houston, Tex	219	131	5	8	22	32	47	15	2	88	5	28	23	18	7	6	1
Indianapolis, Ind	187	109	4	4	19	20	48	14		78	1	18	15	18	16	10	
Jacksonville, Fla	109	72	2	5	17	22	21	5		37	3	7	15	7	3	2	
Jersey City, N. J	175	132	2	6	12	37	56	19		43	2	9	15	11	5	1	
Kansas City, Kans	32	19	1	1	4	4	8	1		13	1	3	2	3	4		
Kansas City, Mo	183	137		6	15	33	57	26		46	1	9	10	12	10	4	
Knoxville, Tenn	35	23	3	1	2	9	4	4		12	1	2	3		3	3	
Long Beach, Calif	42	26	1	1		7	11	6		16		2	5	2	4	3	
Los Angeles, Calif	880	590	25	46	81	124	230	84		290	19	63	77	53	57	21	
Louisville, Ky	237	153	6	10	20	33	68	16		84	6	23	20	13	18	4	
Lowell, Mass	31	24			1	4	13	6		7		1	2	1	2	1	
Memphis, Tenn	156	84	4	8	11	12	35	14		72	5	22	16	10	10	9	
Miami, Fla	109	84	1	3	14	20	39	7		25		2	7	10	4	2	
Milwaukee, Wis	216	156	2	4	17	30	74	29		60	7	8	10	18	14	3	
Minneapolis, Minn	116	80	1	2	9	7	35	26		36		3	13	7	6	7	
Nashville, Tenn	95	64	1	3	15	10	22	13		31	1	3	10	4	7	6	
Newark, N. J	235	153	3	11	27	25	74	13		82	8	20	27	9	18		
New Bedford, Mass	45	28	1	2	1	6	14	4		17	3	4	5	2	2	1	
New Haven, Conn	45	33	3		5	7	13	5		12	1	2	4	1	3	1	
New Orleans, La	372	231	6	11	23	50	99	42		141	8	30	49	30	17	7	
New York, N. Y	3,545	2,475	51	134	299	501	1,167	323		1,070	37	208	307	220	205	93	
Norfolk, Va	118	72	4	11	8	19	25	5		46	3	15	12	7	6	3	
Oakland, Calif	158	110	5	10	10	24	44	17		48	4	13	12	7	9	3	
Oklahoma City, Okla	64	47	1	3	5	13	18	7		17		7	4	4	2		
Omaha, Nebr	70	50	2	4	2	10	22	10		20		5	5		6	4	
Paterson, N. J	40	34		2	2	6	18	6		6			2	1	2	1	
Peoria, Ill	27	17		2	2	2	6	5		10		1	6	1	1	1	
Philadelphia, Pa	1,169	741	23	47	106	118	360	87		428	21	97	117	86	73	34	
Pittsburgh, Pa	326	211	9	10	28	45	95	24		115	3	24	35	24	22	7	
Portland, Oreg	125	91	7	1	8	15	39	21		34		7	8	9	5	5	
Providence, R. I	85	59		3	7	14	26	9		26	2	6	6	3	6	3	
Reading, Pa	42	31				4	20	7		11		3	3	3	2		
Richmond, Va	126	76	4	5	8	15	38	6		50	5	9	16	9	10		1
Rochester, N. Y	135	91	1	3	7	17	36	27		44	1	5	6	5	11	16	
Sacramento, Calif	79	66		4	5	12	36	9		13		4	5	4			
St. Louis, Mo	376	247	2	9	22	45	118	51		129	7	23	32	27	28	12	
St. Paul, Minn	77	46	1	2	5	7	17	14		31	4	3	10	4	7	3	
Salt Lake City, Utah	27	19		1		3	12	3		8			1	3	4		

APPENDIX TABLE 2.—*Number of deaths from tuberculosis (all forms), for all races, by sex and age, for 92 cities of 100,000 or more: United States, 1945*—Continued

City	Total	Male								Female							
		All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated	All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated
San Antonio, Texas	296	177	15	37	34	26	52	13	----	119	9	36	30	16	20	8	----
San Diego, Calif	94	65	3	5	12	12	21	12	----	29	2	5	6	3	9	4	----
San Francisco, Calif	448	318	9	13	32	67	154	43	----	130	5	24	27	28	32	14	----
Scranton, Pa	59	41	1	5	6	5	18	6	----	18	1	6	7	----	3	1	----
Seattle, Wash	211	150	5	14	14	33	67	17	----	61	5	12	12	13	12	7	----
Somerville, Mass	26	17	----	----	----	4	8	5	----	9	----	1	3	3	1	1	----
South Bend, Ind	33	21	----	1	2	9	3	6	----	12	2	2	4	----	3	1	----
Spokane, Wash	30	22	1	----	4	3	8	6	----	8	1	----	3	1	1	2	----
Springfield, Mass	35	17	2	----	----	5	9	1	----	18	1	2	6	2	4	3	----
Syracuse, N. Y	49	28	1	1	3	4	14	5	----	21	1	1	6	1	7	5	----
Tacoma, Wash	44	23	1	6	3	1	9	3	----	21	1	7	2	6	4	1	----
Tampa, Fla	52	34	----	----	4	7	14	9	----	18	----	6	2	6	2	2	----
Toledo, Ohio	180	116	7	3	14	26	44	22	----	64	3	13	13	9	20	6	----
Trenton, N. J	58	34	----	1	6	5	17	5	----	24	----	6	7	5	4	2	----
Tulsa, Okla	54	32	----	2	3	8	17	2	----	22	1	4	7	3	1	6	----
Utica, N. Y	49	29	1	2	2	6	15	3	----	20	1	4	4	1	9	1	----
Washington, D. C	541	354	17	26	57	89	121	44	----	187	8	48	62	27	29	13	----
Wichita, Kans	21	17	3	1	2	2	6	3	----	4	----	----	----	1	2	1	----
Wilmington, Del	49	24	----	2	5	5	11	1	----	25	----	5	6	3	5	6	----
Worcester, Mass	83	60	1	2	5	10	35	7	----	23	----	3	5	4	8	3	----
Yonkers, N. Y	34	22	----	----	3	5	10	4	----	12	----	2	2	1	6	1	----
Youngstown, Ohio	38	21	----	1	4	2	10	4	----	17	1	3	2	3	4	4	----

APPENDIX TABLE 3.—*Number of deaths from tuberculosis (all forms), for the white race, by sex and age, for 92 cities [1] of 100,000 or more: United States, 1945*

[By place of residence. Excludes deaths of armed forces overseas]

City	Total	Male								Female							
		All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated	All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated
Total	13,753	9,631	232	412	1,027	1,823	4,634	1,500	3	4,122	194	700	1,046	782	927	473	
Akron, Ohio	84	54	1	1	10	9	25	8		30	3	7	7	8	3	2	
Albany, N. Y	68	46		3	5	10	23	5		22		5	6	3	6	2	
Atlanta, Ga	58	32			8	4	12	8		26	1	7	6	3	7	2	
Baltimore, Md	305	214	4	7	26	50	97	30		91	1	18	25	19	21	7	
Birmingham, Ala	45	28		1	4	5	13	5		17	3	3	1	3	3	4	
Boston, Mass	450	329	6	5	26	67	175	50		121		16	34	23	26	22	
Bridgeport, Conn	64	46	1	1	7	8	22	7		18	1	3	3	3	6	2	
Buffalo, N. Y	340	224	3	14	30	42	106	29		116	10	25	36	19	17	9	
Cambridge, Mass	41	27		1	3	6	16	1		14		2	4	2	4	2	
Camden, N. J	45	32		1	3	3	15	10		13	2		3	2	2	4	
Canton, Ohio	16	8		1	1		5	1		8	1	1	1	1	3	1	
Charlotte, N. C	18	13			1	4	4	4		5		1	1	1	1	1	
Chattanooga, Tenn	63	44	1	3	7	10	16	7		19	1	2	3	1	11	1	
Chicago, Ill	1,161	821	12	44	99	168	411	87		340	14	63	103	60	79	21	
Cincinnati, Ohio	189	131	3	3	19	24	68	14		58	4	9	13	10	14	8	
Cleveland, Ohio	330	225	1	5	31	35	121	32		105	6	13	25	20	28	13	
Columbus, Ohio	100	60	4	5	4	15	27	5		40		7	8	7	12	6	
Dallas, Tex	78	60	1	4	4	10	27	14		18	1	7	3	1	2	4	
Dayton, Ohio	80	47		1	6	6	22	12		33	1	9	9	8	2	4	
Denver, Colo	148	100	5	6	8	22	41	18		48	2	5	12	12	12	5	
Des Moines, Iowa	35	25		1	7	4	10	3		10		5	2		2	1	
Detroit, Mich	514	374	7	13	42	73	197	42		140	11	30	45	23	23	8	
Duluth, Minn	16	9	1				5	3		7	1		1	1	3	1	
Elizabeth, N. J	32	22		2	4	4	12			10		2	2	2	4		
Erie, Pa	32	23	1	3	5	4	8	2		9	2	3	2			2	
Fall River, Mass	48	29	5	1	2	6	9	6		19	3	4	6	3	3		
Flint, Mich	41	26		1	4	2	15	4		15	2	1	5	4	2	1	
Fort Wayne, Ind	48	30	2	8	3	3	10	4		18	1		6	1	7	3	
Fort Worth, Tex	41	24	1		4	7	9	3		17	1		2	2	6	6	
Gary, Ind	28	23	1		1	1	17	2	1	5		2	1	1	1		

See footnote at end of table.

APPENDIX TABLE 3.—*Number of deaths from tuberculosis (all forms), for the white race, by sex and age, for 92 cities[1] of 100,000 or more: United States, 1945*—Continued

City	Total	Male								Female							
		All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated	All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated
Grand Rapids, Mich	23	13			1	3	7	2		10		2	3	1	2	2	
Hartford, Conn	78	54	2	2	7	8	28	7		24	3	4	5	6	3	3	
Houston, Tex	138	95	1	5	12	21	41	13	2	43	4	15	7	7	5	5	
Indianapolis, Ind	120	72	2	3	11	12	34	10		48	1	8	9	9	12	9	
Jacksonville, Fla	25	22	2		5	7	4	4		3			1		1	1	
Jersey City, N. J	175	132	2	6	12	37	56	19		43	2	9	15	11	5	1	
Kansas City, Kans	23	14	1		3	3	6	1		9		2	1	3	3		
Kansas City, Mo	117	96		1	6	20	46	23		21		1	4	6	6	4	
Knoxville, Tenn	26	16	3	1	2	4	2	4		10		2	2		3	3	
Long Beach, Calif	42	26	1	1		7	11	6		16		2	5	2	4	3	
Los Angeles, Calif	714	485	21	29	59	100	200	76		229	17	40	60	45	50	17	
Louisville, Ky	131	86	4	1	11	20	37	13		45	5	8	9	7	12	4	
Lowell, Mass	31	24			1	4	13	6		7		1	2	1	2	1	
Memphis, Tenn	55	36	2	1	4	5	15	9		19			5	2	5	7	
Miami, Fla	54	44		2	4	6	28	4		10			2	3	3	2	
Milwaukee, Wis	216	156	2	4	17	30	74	29		60	7	8	10	18	14	3	
Minneapolis, Minn	116	80	1	2	9	7	35	26		36		3	13	7	6	7	
Nashville, Tenn	56	39	1	3	5	5	15	10		17		1	3	3	5	5	
Newark, N. J	119	92	1	3	10	15	51	12		27		4	8	4	11		
New Bedford, Mass	45	28	1	2	1	6	14	4		17	3	4	5	2	2	1	
New Haven, Conn	45	33	3		5	7	13	5		12	1	2	4	1	3	1	
New Orleans, La	186	142	3	1	14	19	73	32		44	1	4	14	11	9	5	
New York, N. Y	2,546	1,888	35	59	168	360	976	290		658	21	82	169	156	149	81	
Norfolk, Va	38	23	2	4	1	4	10	2		15	1	4	3	2	2	3	
Oakland, Calif	158	110	5	10	10	24	44	17		48	4	13	12	7	9	3	
Oklahoma City, Okla	64	47	1	3	5	13	18	7		17		7	4	4	2		
Omaha, Nebr	70	50	2	4	2	10	22	10		20		5	5		6	4	
Paterson, N. J	40	34		2	2	6	18	6		6			2	1	2	1	
Peoria, Ill	27	17		2	2	2	6	5		10		1	6	1	1	1	
Philadelphia, Pa	686	484	11	14	51	66	267	75		202	5	33	51	43	44	26	
Pittsburgh, Pa	202	134	3	4	10	28	69	20		68	1	11	21	15	14	6	
Portland, Oreg	125	91	7	1	8	15	39	21		34		7	8	9	5	5	
Providence, R. I	85	59		3	7	14	26	9		26	2	6	6	3	6	3	
Reading, Pa	42	31				4	20	7		11		3	3	3	2		
Richmond, Va	50	33			2	7	19	5		17	1	2	4	4	6		
Rochester, N. Y	135	91	1	3	7	17	36	27		44	1	5	6	5	11	16	
Sacramento, Calif	70	46															

Rochester, N. Y.	135	91	1	3	7	17	36	27		44	1	5	6	5	11	16	
Sacramento, Calif.	79	66		4	5	12	36	9		13		4	5	4			
St. Louis, Mo.	248	175		5	12	24	89	45		73	3	13	17	13	17	10	
St. Paul, Minn.	77	46	1	2	5	7	17	14		31	4	3	10	4	7	3	
Salt Lake City, Utah	27	19		1		3	12	3		8			1	3	4		
San Antonio, Tex.	296	177	15	37	34	26	52	13		119	9	36	30	16	20	8	
San Diego, Calif.	94	65	3	5	12	12	21	12		29	2	5	6	3	9	4	
San Francisco, Calif.	369	265	8	5	25	54	135	38		104	5	13	19	24	30	13	
Scranton, Pa.	59	41	1	5	6	5	18	6		18	1	6	7		3	1	
Seattle, Wash.	211	150	5	14	14	33	67	17		61	5	12	12	13	12	7	
Somerville, Mass.	26	17				4	8	5		9		1	3	3	1	1	
South Bend, Ind.	33	21		1	2	9	3	6		12	2	2	4		3	1	
Spokane, Wash.	30	22	1		4	3	8	6		8	1		3	1	1	2	
Springfield, Mass.	35	17	2			5	9	1		18	1	2	6	2	4	3	
Syracuse, N. Y.	49	28	1	1	3	4	14	5		21	1	1	6	1	7	5	
Tacoma, Wash.	44	23	1	6	3	1	9	3		21	1	7	2	6	4	1	
Tampa, Fla.	25	19			2	3	7	7		6		2	1	1	1	1	
Toledo, Ohio	180	116	7	3	14	26	44	22		64	3	13	13	9	20	6	
Trenton, N. J.	58	34		1	6	5	17	5		24		6	7	5	4	2	
Tulsa, Okla.	42	25			2	6	15	2		17	1	2	4	3	1	6	
Utica, N. Y.	49	29	1	2	2	6	15	3		20	1	4	4	1	9	1	
Washington, D. C.	195	137	2	3	11	35	59	27		58	1	9	12	14	13	9	
Wichita, Kans.	21	17	3	1	2	2	6	3		4				1	2	1	
Wilmington, Del.	30	16		2	3	3	7	1		14		2	3	2	2	5	
Worcester, Mass.	83	60	1	2	5	10	35	7		23		3	5	4	8	3	
Yonkers, N. Y.	34	22			3	5	10	4		12		2	2	1	6	1	
Youngstown, Ohio	38	21		1	4	2	10	4		17	1	3	2	3	4	4	

[1] Deaths of nonwhites are included with those for whites for cities having small nonwhite populations (less than 20,000 or less than 10 percent of the total population according to the 1940 census).

APPENDIX TABLE 4.—*Number of deaths from tuberculosis (all forms), for the nonwhite races, by sex and age, for 40 cities[1] of 100,000 or more: United States, 1945*

[By place of residence. Excludes deaths among armed forces overseas]

City	Total	Male								Female							
		All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated	All ages	Under 15	15 to 24	25 to 34	35 to 44	45 to 64	65 and over	Not stated
Total	5,710	3,233	140	439	650	778	1,041	185	----	2,477	174	795	742	425	285	54	2
Atlanta, Ga	116	52	6	11	13	12	8	2	----	64	6	19	16	16	6	1	----
Baltimore, Md	377	216	15	39	37	49	68	8	----	161	19	49	45	30	16	2	----
Birmingham, Ala	125	59	3	12	18	10	14	2	----	66	7	26	19	10	4	----	----
Boston, Mass	50	30	1	3	5	6	10	5	----	20	1	5	7	3	3	1	----
Camden, N. J	17	11	----	3	2	1	5	----	----	6	----	4	1	1	----	----	----
Charlotte, N. C	17	13	1	1	2	7	1	1	----	4	----	1	3	----	----	----	----
Chattanooga, Tenn	61	33	----	5	7	10	9	2	----	28	1	11	12	2	1	1	----
Chicago, Ill	662	354	18	53	76	90	103	14	----	308	26	111	81	56	31	3	----
Cincinnati, Ohio	141	84	4	16	17	12	28	7	----	57	3	28	7	15	3	1	----
Cleveland, Ohio	170	99	2	18	16	20	40	3	----	71	3	19	22	14	13	----	----
Columbus, Ohio	65	39	----	4	6	12	12	5	----	26	1	12	8	3	2	----	----
Dallas, Tex	55	28	1	4	8	3	11	1	----	27	3	10	9	2	3	----	----
Dayton, Ohio	25	15	2	2	2	5	3	1	----	10	2	2	2	1	3	----	----
Detroit, Mich	310	168	6	29	26	50	51	6	----	142	17	53	36	19	14	3	----
Fort Worth, Tex	22	12	2	3	1	2	2	2	----	10	----	5	3	1	1	----	----
Gary, Ind	39	24	1	6	5	3	9	----	----	15	3	5	3	2	2	----	----
Houston, Tex	81	36	4	3	10	11	6	2	----	45	1	13	16	11	2	1	1
Indianapolis, Ind	67	37	2	1	8	8	14	4	----	30	----	10	6	9	4	1	----
Jacksonville, Fla	84	50	----	5	12	15	17	1	----	34	3	7	14	7	2	1	----
Kansas City, Kans	9	5	----	1	1	1	2	----	----	4	1	1	1	----	1	----	----
Kansas City, Mo	66	41	----	5	9	13	11	3	----	25	1	8	6	6	4	----	----
Knoxville, Tenn	9	7	----	----	----	5	2	----	----	2	1	----	1	----	----	----	----
Los Angeles, Calif	166	105	4	17	22	24	30	8	----	61	2	23	17	8	7	4	----
Louisville, Ky	106	67	2	9	9	13	31	3	----	39	1	15	11	6	6	----	----
Memphis, Tenn	101	48	2	7	7	7	20	5	----	53	5	22	11	8	5	2	----
Miami, Fla	55	40	1	1	10	14	11	3	----	15	----	2	5	7	1	----	----
Nashville, Tenn	39	25	----	----	10	5	7	3	----	14	1	2	7	1	2	1	----
Newark, N. J	116	61	2	8	17	10	23	1	----	55	8	16	19	5	7	----	----
New Orleans, La	186	89	3	10	9	31	26	10	----	97	7	26	35	19	8	2	----
New York, N. Y	999	587	16	75	131	141	191	33	----	412	16	126	138	64	56	12	----
Norfolk, Va	80	49	2	7	7	15	15	3	----	31	2	11	9	5	4	----	----
Philadelphia, Pa	483	257	12	33	55	52	93	12	----	226	16	64	66	43	29	8	----
Pittsburgh, Pa	124	77	6	6	18	17	26	4	----	47	2	13	14	9	8	1	----
Richmond, Va	76	43	4	5	6	8	19	1	----	33	4	7	12	5	4	----	1
St. Louis, Mo	128	72	2	4	10	21	29	6	----	56	4	10	15	14	11	2	----
San Francisco, Calif	79	53	1	8	7	13	19	5	----	26	----	11	8	4	2	1	----
Tampa, Fla	27	15	----	----	2	4	7	2	----	12	----	4	1	5	1	1	----
Tulsa, Okla	12	7	----	2	1	2	2	----	----	5	----	2	3	----	----	----	----
Washington, D. C	346	217	15	23	46	54	62	17	----	129	7	39	50	13	16	4	----
Wilmington, Del	19	8	----	----	2	2	4	----	----	11	----	3	3	1	3	1	----

[1] Cities shown in this table are those in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

INCIDENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED DECEMBER 13, 1947

Summary

A total of 3,973 cases of influenza was reported, as compared with 3,008 last week and a 5-year (1942–46) median of 2,924. The increase is accounted for chiefly in the reports from Virginia (379 to 721), South Carolina (476 to 542), West Virginia (32 to 79), Arkansas (63 to 89), Louisiana (29 to 301), Texas (1,512 to 1,639), and California (11 to 99). No other State reported more than 81 cases or showed an increase of more than 25. The total to date since July 26 (approximate average date of seasonal low incidence) is 29,177 cases, as compared with 26,977 for the corresponding period last year (which number is also the 5-year median for the period.

A total of 107 cases of poliomyelitis was reported for the current week as compared with 132 last week, 197 and 115, respectively, for the corresponding weeks of 1946 and 1945, and a 5-year median of 89. States reporting the largest numbers currently are Ohio 13 (last week 17), Idaho 11 (last week 19), and New York, Michigan, and California 9 cases each. The total since March 15, the average date of seasonal low incidence, 10,072, as compared with 24,489 for the same period last year and a 5-year median of 13,161, is less than reported for the corresponding period of any other year since 1942 (3,841).

Three cases of smallpox were reported currently (2 in Ohio and 1 in South Dakota), and 2 cases of Rocky Mountain spotted fever (1 each in New Jersey and North Carolina). The total of 79 cases of typhoid and paratyphoid fever for the week (last week 50, 5-year median 56) includes 30 cases of paratyphoid and 1 case of typhoid fever in Oklahoma. Included in the current total of 115 cases of undulant fever (last week 95, same week last year 123), are 21 cases in Michigan, 17 in Wisconsin, and 8 each in Illinois, Iowa, and Nebraska.

Deaths recorded during the week in 93 large cities of the United States totaled 9,942, as compared with 10,096 last week, 9,612 and 10,228, respectively, for the corresponding weeks of 1946 and 1945, and a 3-year (1944–46) median of 9,612. The cumulative figure is 459,534, as compared with 451,426 for the same period last year. Infant deaths during the week in the same cities totaled 697, as compared with 724 last week and a 3-year median of 640. The cumulative number is 36,592, as compared with 33,425 for the same period last year.

[1] Cities shown in this table are those in which the nonwhite population constitutes at least 10 percent of the total population or numbers 20,000 or more according to the 1940 census.

769681—48——3

Telegraphic morbidity reports from State health officers for the week ended Dec. 13, 1947, and comparison with corresponding week of 1946 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none was reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended—		Median 1942–46	Week ended—		Median 1942–46	Week ended—		Median 1942–46	Week ended—		Median 1942–46
	Dec. 13, 1947	Dec. 14, 1946		Dec. 13, 1947	Dec. 14, 1946		Dec. 13, 1947	Dec. 14, 1946		Dec. 13, 1947	Dec. 14, 1946	
NEW ENGLAND												
Maine	1	5	3	----	3	3	5	268	13	0	0	1
New Hampshire	0	0	0	1	1	1	----	55	13	0	0	0
Vermont	1	0	0	----	----	----	2	148	5	0	0	0
Massachusetts	4	25	5	----	----	----	72	239	239	1	3	6
Rhode Island	1	0	1	----	----	8	----	13	4	1	0	1
Connecticut	0	0	0	1	2	3	3	54	14	3	2	2
MIDDLE ATLANTIC												
New York	14	26	21	[1] 9	[1] 4	[1] 12	224	179	266	2	8	17
New Jersey	9	7	4	4	5	9	239	109	40	1	3	6
Pennsylvania	13	17	11	[2]	[3] 7	[3] 7	158	551	506	6	0	7
EAST NORTH CENTRAL												
Ohio	19	25	15	3	8	10	161	128	52	3	2	4
Indiana	16	23	7	1	4	15	52	11	11	1	3	2
Illinois	1	19	8	3	4	10	563	11	83	1	2	7
Michigan [4]	9	7	7	----	2	6	472	77	77	0	2	3
Wisconsin	2	9	2	6	22	49	98	28	28	1	0	3
WEST NORTH CENTRAL												
Minnesota	8	10	9	1	----	1	310	4	6	1	3	2
Iowa	2	1	3	----	2	2	94	7	13	0	2	0
Missouri	6	12	5	11	2	4	7	----	8	1	1	3
North Dakota	2	5	2	2	14	14	77	----	----	1	1	0
South Dakota	0	3	2	----	----	----	9	3	3	0	0	0
Nebraska	0	2	2	11	----	31	16	3	12	0	2	1
Kansas	9	9	9	1	3	4	7	4	19	0	1	1
SOUTH ATLANTIC												
Delaware	0	1	0	----	----	----	1	1	1	0	1	1
Maryland [3]	17	7	7	4	3	5	1	19	11	0	0	6
District of Columbia	0	0	0	1	----	3	12	14	3	0	0	0
Virginia	6	9	9	721	255	255	28	34	34	3	3	4
West Virginia	7	4	4	79	49	49	187	12	12	1	0	1
North Carolina	29	9	14	----	----	----	4	133	20	5	2	2
South Carolina	13	11	7	542	498	498	4	60	13	0	0	1
Georgia	16	5	13	17	19	59	24	27	21	2	2	1
Florida	13	15	8	19	20	8	6	22	4	0	0	0
EAST SOUTH CENTRAL												
Kentucky	6	24	11	1	----	5	5	1	10	0	2	2
Tennessee	17	5	10	49	27	40	8	6	12	1	1	1
Alabama	13	19	17	58	44	53	16	34	2	3	1	1
Mississippi [3]	3	5	12	19	----	----	15	----	----	1	2	2
WEST SOUTH CENTRAL												
Arkansas	3	9	9	89	79	90	22	9	14	0	0	2
Louisiana	5	8	9	301	2	3	9	----	5	0	1	1
Oklahoma	13	8	9	117	103	137	2	2	6	5	2	1
Texas	25	16	49	1,639	1,365	1,702	148	58	51	4	6	4
MOUNTAIN												
Montana	1	1	1	4	20	20	114	70	70	0	0	0
Idaho	0	0	0	18	8	4	3	2	3	0	1	0
Wyoming	0	0	0	----	----	66	20	1	8	0	0	0
Colorado	5	8	7	22	26	54	34	7	12	1	1	1
New Mexico	5	1	2	----	4	4	6	32	1	0	0	1
Arizona	3	5	2	81	254	254	3	30	7	0	1	1
Utah [3]	5	0	0	5	2	8	16	7	9	0	0	0
Nevada	0	0	0	----	----	----	----	----	1	0	0	0
PACIFIC												
Washington	4	3	7	----	----	----	31	23	52	0	0	3
Oregon	2	0	3	34	1	21	25	23	26	1	0	1
California	10	18	23	99	13	25	310	73	126	4	9	9
Total	338	396	396	3,973	2,875	2,924	3,623	2,592	2,592	54	70	108
50 weeks	11,977	15,574	14,995	330,690	217,174	217,174	207,363	658,025	587,903	3,307	5,535	7,710
Seasonal low week [4]	(27th) July 5–11			(30th) July 26–Aug. 1			(35th) Aug. 30–Sept. 5			(37th) Sept. 13–19		
Total since low	5,680	6,946	7,718	29,177	26,977	26,977	21,861	17,940	21,111	666	869	1,215

[1] New York City only. [3] Philadelphia only.
[2] Period ended earlier than Saturday.
[4] Dates between which the approximate low week ends. The specific date will vary from year to year.

Telegraphic morbidity reports from State health officers for the week ended Dec. 13, 1947, and comparison with corresponding week of 1946 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended—		Median 1942–46	Week ended—		Median 1942–46	Week ended—		Median 1942–46	Week ended—		Median 1942–46
	Dec. 13, 1947	Dec. 14, 1946		Dec. 13, 1947	Dec. 14, 1946		Dec. 13, 1947	Dec. 14, 1946		Dec. 13, 1947 [5]	Dec. 14, 1946	
NEW ENGLAND												
Maine	0	0	0	27	37	25	0	0	0	0	3	1
New Hampshire	0	1	0	13	5	5	0	0	0	0	0	0
Vermont	0	3	1	4	3	3	0	0	0	0	0	0
Massachusetts	1	8	2	108	176	193	0	0	0	4	2	2
Rhode Island	0	1	0	8	11	11	0	0	0	0	0	0
Connecticut	0	1	1	26	28	40	0	0	0	0	0	0
MIDDLE ATLANTIC												
New York	9	14	14	178	306	301	0	0	0	3	2	4
New Jersey	0	4	1	55	70	70	0	0	0	2	0	1
Pennsylvania	2	3	1	170	169	174	0	0	0	3	5	4
EAST NORTH CENTRAL												
Ohio	13	10	2	226	257	269	2	1	0	1	2	2
Indiana	3	6	0	69	58	54	0	0	0	0	2	0
Illinois	5	18	2	100	118	150	0	0	0	2	1	2
Michigan [3]	9	6	3	100	161	161	0	0	0	3	0	3
Wisconsin	4	8	2	46	56	128	0	0	0	0	0	0
WEST NORTH CENTRAL												
Minnesota	2	4	1	72	37	60	0	0	0	2	0	0
Iowa	1	5	1	58	18	45	0	0	0	0	0	0
Missouri	2	4	2	19	33	52	0	1	0	1	0	1
North Dakota	0	10	0	5	11	13	0	0	0	0	3	0
South Dakota	0	5	1	2	4	16	1	0	0	0	2	0
Nebraska	0	6	1	24	19	22	0	0	0	1	0	0
Kansas	0	2	2	19	28	78	0	0	1	0	0	0
SOUTH ATLANTIC												
Delaware	1	0	0	6	7	5	0	0	0	1	1	0
Maryland [3]	0	2	1	19	35	43	0	0	0	1	2	1
District of Columbia	0	0	0	3	10	14	0	0	0	0	0	1
Virginia	0	1	1	36	42	42	0	0	0	0	2	0
West Virginia	1	0	0	36	23	42	0	0	0	1	0	0
North Carolina	7	1	1	38	33	63	0	0	0	0	1	0
South Carolina	0	0	0	11	9	9	0	0	0	0	0	0
Georgia	3	0	0	32	18	29	0	0	0	1	0	1
Florida	6	4	3	11	10	8	0	0	0	2	0	1
EAST SOUTH CENTRAL												
Kentucky	1	0	2	33	43	52	0	0	0	0	2	2
Tennessee	2	5	0	53	21	37	0	0	0	1	1	1
Alabama	0	2	0	8	8	20	0	0	0	0	2	1
Mississippi [3]	0	5	1	4	6	8	0	0	0	0	1	1
WEST SOUTH CENTRAL												
Arkansas	2	3	1	5	5	11	0	0	0	0	2	2
Louisiana	0	3	1	7	6	8	0	0	0	7	0	3
Oklahoma	0	2	0	12	11	18	0	1	0	31	0	1
Texas	5	14	4	29	33	55	0	0	0	4	2	6
MOUNTAIN												
Montana	0	0	0	24	8	12	0	0	0	0	3	0
Idaho	11	1	0	4	8	13	0	0	0	0	2	1
Wyoming	0	0	0	4	2	7	0	0	0	0	0	0
Colorado	0	1	0	36	33	35	0	0	0	0	0	0
New Mexico	0	2	0	20	14	14	0	0	0	1	0	1
Arizona	0	2	1	8	16	14	0	0	0	0	1	1
Utah [3]	2	0	0	21	31	32	0	0	0	0	0	0
Nevada	1	0	0	1	0	0	0	0	0	0	0	0
PACIFIC												
Washington	4	9	4	51	57	57	0	0	0	2	1	1
Oregon	2	0	0	0	30	34	0	0	0	2	1	0
California	9	21	15	93	143	171	0	0	0	3	3	3
Total	108	197	89	1,934	2,267	2,882	3	3	6	79	49	56
50 weeks	10,684	24,960	13,558	79,935	109,152	134,742	163	330	377	3,802	3,925	5,302
Seasonal low week [4]	(11th) Mar. 15–21			(32nd) Aug. 9–15			(35th) Aug. 30–Sept. 5			(11th) Mar. 15–21		
Total since low	10,072	24,493	13,161	17,832	22,857	33,963	16	51	70	3,317	3,450	4,486

[3] Period ended earlier than Saturday.
[4] Dates between which the approximate low week ends. The specific date will vary from year to year.
[5] Including paratyphoid fever reported separately, as follows: Massachusetts 3 (salmonella infection); New Jersey 1; Ohio 1; Florida 1; Oklahoma 30; California 1.

Telegraphic morbidity reports from State health officers for the week ended Dec. 13, 1947, and comparison with corresponding week of 1946 and 5-year median—Con.

Division and State	Whooping cough			Week ended December 13, 1947							
	Week ended—		Median 1942–46	Dysentery			Encephalitis, infectious	Rocky Mt. spotted fever	Tularemia	Typhus fever, endemic	Undulant fever
	Dec. 13, 1947	Dec. 14, 1946		Amebic	Bacillary	Unspecified					
NEW ENGLAND											
Maine	23	18	33		2						2
New Hampshire		25	11								
Vermont	42	12	20								3
Massachusetts	155	170	164		6						
Rhode Island	23	16	17								1
Connecticut	127	48	58								1
MIDDLE ATLANTIC											
New York	217	290	286	18	6		1		1		5
New Jersey	143	183	152	1				1	1		2
Pennsylvania	211	274	129				1				2
EAST NORTH CENTRAL											
Ohio	169	112	112								1
Indiana	61	16	15			1				1	3
Illinois	100	114	76	9	10		1		3		8
Michigan [3]	162	208	208	1	2				1		21
Wisconsin	196	273	177								17
WEST NORTH CENTRAL											
Minnesota	87	16	20				3				2
Iowa	24	18	19	1							8
Missouri	31	19	12			2			1		4
North Dakota	7		5								
South Dakota	11		2								
Nebraska	15	6	6	4			1				8
Kansas	16	10	19						1		1
SOUTH ATLANTIC											
Delaware	3	1	5								1
Maryland [3]	51	74	74			1					2
District of Columbia	13	12	5								
Virginia	88	38	43	1		43	1		2	1	
West Virginia	12	32	22								
North Carolina	61	76	76					1	1	1	
South Carolina	54	42	38	3					3		1
Georgia	23	7	7		3					5	
Florida	10	21	11	2						1	1
EAST SOUTH CENTRAL											
Kentucky	42	41	23						1	1	
Tennessee	53	38	23	1					2		
Alabama	65	50	21							6	5
Mississippi [3]	4			1						1	
WEST SOUTH CENTRAL											
Arkansas	43	12	14	8		2				1	
Louisiana	14		2		1						
Oklahoma	28	11	5	1	4						
Texas	224	216	145	36	352	33				9	4
MOUNTAIN											
Montana	10	3	3								
Idaho	7	5	3								
Wyoming	1	6	6								
Colorado	84	16	14								5
New Mexico	19	24	3								1
Arizona	39	13	10			16	1				
Utah [3]	10	1	13								2
Nevada											
PACIFIC											
Washington	34	30	32	2							
Oregon	10	5	7	1							
California	105	62	108	4	1						4
Total	2,927	2,664	2,125	94	387	98	9	2	17	27	115
Same week: 1946	2,664			40	265	190	8	1	90	31	123
Median, 1942–46	2,125			31	434	165	7	0	36	76	[4] 94
50 weeks: 1947	149,782			2,916	16,172	9,427	[4] 617	567	1,302	1,884	5,905
1946	96,419			2,350	16,007	6,297	600	569	1,052	3,294	5,161
Median, 1942–46	120,814			1,885	17,562	7,344	612	453	772	4,393	[4] 4,947

[3] Period ended earlier than Saturday.
[4] 2-year average, 1945–46.

Anthrax: New York 1, New Jersey 1.
Alaska: Mumps 1.
Territory of Hawaii: Diphtheria 1, amebic dysentery 1, bacillary dysentery 3, influenza 1, leprosy 1, measles 5, endemic typhus fever 2, whooping cough 19.

WEEKLY REPORTS FROM CITIES*

City reports for week ended Dec. 6, 1947

This table lists the reports from 87 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENGLAND												
Maine:												
Portland	0	0	------	0	-------	0	1	0	3	0	0	12
New Hampshire:												
Concord	0	0	------	0	-------	0	0	0	0	0	0	------
Massachusetts:												
Boston	10	0	------	0	56	0	11	1	28	0	0	20
Fall River	0	0	------	0	-------	0	0	0	4	0	0	19
Springfield	0	0	------	0	-------	0	0	0	1	0	0	21
Worcester	0	0	------	0	1	1	8	0	9	0	0	14
Rhode Island:												
Providence	0	0	------	0	-------	0	0	0	2	0	1	16
Connecticut:												
Bridgeport	0	0	------	0	-------	0	0	0	1	0	0	1
Hartford	0	0	------	0	3	0	0	0	0	0	0	19
New Haven	0	0	------	0	-------	1	0	0	4	0	0	15
MIDDLE ATLANTIC												
New York:												
Buffalo	0	0	------	0	-------	0	9	2	0	0	0	21
New York	9	1	9	0	120	4	66	3	69	0	1	78
Rochester	0	0	------	0	-------	0	4	4	3	0	0	10
Syracuse	0	0	------	0	-------	0	2	0	4	0	0	16
New Jersey:												
Camden	0	0	1	1	-------	0	0	0	0	0	0	2
Newark	0	0	2	0	-------	2	2	0	5	0	0	18
Trenton	4	0	------	0	-------	1	1	0	1	0	0	------
Pennsylvania:												
Philadelphia	0	0	4	3	12	0	20	1	19	0	0	51
Pittsburgh	1	0	------	0	-------	1	13	0	12	0	0	18
Reading	0	0	------	0	3	0	0	0	3	0	0	------
EAST NORTH CENTRAL												
Ohio:												
Cincinnati	0	0	------	0	-------	2	4	2	12	0	0	10
Cleveland	1	0	3	0	-------	0	4	0	9	0	0	31
Columbus	6	0	------	0	15	0	2	1	10	0	0	4
Indiana:												
Fort Wayne	0	0	------	0	1	0	1	0	2	0	0	2
Indianapolis	4	0	------	1	-------	0	8	0	12	0	0	6
South Bend	0	0	------	0	-------	0	0	0	0	0	0	------
Terre Haute	0	0	------	0	-------	0	0	0	1	0	0	------
Illinois:												
Chicago	0	0	2	------	111	0	------	2	30	0	1	22
Michigan:												
Detroit	1	0	0	1	9	0	7	0	31	0	0	44
Flint	0	0	------	0	2	0	5	0	9	0	0	5
Wisconsin:												
Kenosha	0	0	------	0	1	0	0	0	1	0	0	2
Milwaukee	0	0	------	0	2	0	2	0	12	0	0	22
Racine	0	0	------	0	1	0	0	0	4	0	0	4
Superior	0	0	------	0	2	0	0	0	0	0	0	5
WEST NORTH CENTRAL												
Minnesota:												
Duluth	1	0	------	0	3	0	1	0	3	0	0	19
Minneapolis	1	0	------	0	282	0	7	0	22	0	0	33
St. Paul	0	0	------	0	4	0	2	0	3	0	0	15
Missouri:												
Kansas City	0	0	3	0	-------	0	5	0	5	0	0	16
St. Joseph	0	0	------	0	-------	0	0	0	2	0	0	------
St. Louis	5	0	2	0	-------	1	9	0	3	0	1	------

* In some instances the figures include nonresident cases.

City reports for week ended Dec. 6, 1947—Continued

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
WEST NORTH CENTRAL—continued												
Nebraska:												
Omaha	0	0	------	0	1	0	1	0	1	0	0	6
Kansas:												
Topeka	0	0	------	0	------	0	0	0	1	0	0	3
Wichita	0	0	------	0	------	0	10	0	1	0	0	7
SOUTH ATLANTIC												
Delaware:												
Wilmington	0	0	------	0	------	0	0	0	0	0	0	------
Maryland:												
Baltimore	3	0	3	2	1	0	6	2	15	0	0	57
Cumberland	12	0	------	0	------	0	0	0	0	0	0	1
Frederick	0	0	------	0	------	0	0	0	0	0	0	------
District of Columbia:												
Washington	0	0	------	0	4	1	5	1	11	0	0	11
Virginia:												
Lynchburg	0	0	------	0	------	0	0	0	1	0	0	8
Richmond	0	0	------	0	1	0	4	0	3	0	0	3
Roanoke	1	0	------	0	------	0	0	0	0	0	0	------
West Virginia:												
Charleston	0	0	------	0	------	0	4	0	2	0	0	------
Wheeling	0	0	------	0	------	0	3	0	0	0	0	------
North Carolina:												
Raleigh	0	0	------	0	------	0	0	0	0	0	0	------
Wilmington	2	0	------	0	------	0	2	0	0	0	0	------
Winston-Salem	0	0	------	0	------	0	2	0	3	0	0	------
South Carolina:												
Charleston	0	0	27	0	------	0	2	0	0	0	0	2
Georgia:												
Atlanta	0	0	1	1	------	0	4	2	9	0	0	------
Brunswick	0	0	------	0	------	0	0	0	0	0	0	------
Savannah	0	0	1	0	------	0	1	0	5	0	0	9
Florida:												
Tampa	2	1	------	0	2	0	2	0	1	0	0	4
EAST SOUTH CENTRAL												
Tennessee:												
Memphis	1	0	------	2	12	0	10	0	3	0	0	5
Nashville	0	0	------	0	------	0	3	0	3	0	0	------
Alabama:												
Birmingham	0	0	5	0	------	0	0	7	4	0	0	------
Mobile	0	0	2	0	------	1	2	1	0	0	0	------
WEST SOUTH CENTRAL												
Arkansas:												
Little Rock	0	0	1	0	1	0	0	0	0	0	0	------
Louisiana:												
New Orleans	5	0	3	1	------	1	1	0	5	0	0	1
Shreveport	0	0	------	0	------	0	4	0	0	0	0	------
Oklahoma:												
Oklahoma City	0	0	8	0	------	0	3	0	7	0	0	3
Texas:												
Dallas	1	0	------	0	------	0	1	0	1	0	0	7
Galveston	0	0	------	0	------	0	1	0	0	0	0	1
Houston	1	0	1	0	7	0	4	0	2	0	0	1
San Antonio	0	0	1	1	------	0	5	0	1	0	0	------
MOUNTAIN												
Montana:												
Billings	0	0	------	0	124	0	0	0	2	0	0	------
Great Falls	0	0	------	0	2	0	1	0	1	0	0	------
Helena	0	0	------	0	1	0	1	0	0	0	0	------
Missoula	0	0	------	0	------	0	0	0	0	0	0	------
Idaho:												
Boise	0	0	------	0	------	0	2	0	0	0	0	------
Colorado:												
Denver	1	0	2	0	7	1	0	0	10	0	0	12
Pueblo	0	0	------	0	------	0	1	0	1	0	0	22
Utah:												
Salt Lake City	0	0	------	0	------	0	2	0	1	0	0	2

City reports for week ended Dec. 6, 1947—Continued

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
PACIFIC												
Washington:												
Seattle	0	0	------	1	5	1	3	0	4	0	0	8
Spokane	0	0	------	0	9	0	2	1	1	0	0	------
Tacoma	0	0	------	0	12	0	0	0	2	0	0	------
California:												
Los Angeles	4	0	5	0	12	1	0	5	24	0	0	18
Sacramento	0	0	------	0	3	0	1	0	0	0	0	1
San Francisco	0	0	------	0	47	0	3	0	8	0	0	3
Total	75	2	86	14	879	19	290	35	472	0	4	792
Corresponding week, 1946[1]	107	------	47	14	631	------	[2] 280	------	464	0	5	670
Average 1942–46[1]	87	------	831	[2] 30	[3] 726	------	[2] 356	------	782	0	11	624

[1] Exclusive of Oklahoma City.
[2] 3-year average, 1944–46.
[3] 5-year median, 1942–46.

Dysentery, amebic.—Cases: New York 9; Minneapolis 1; St. Louis 1; Denver 1; Los Angeles 1.
Dysentery, bacillary.—Cases: Nashville 1; New Orleans 1; Los Angeles 1.
Dysentery, unspecified.—Cases: Cincinnati 6; Baltimore 3; San Antonio 1.
Typhus fever, endemic.—Cases: New York 1; Raleigh 1; Atlanta 1; Dallas 1.

Rates (annual basis) per 100,000 population, by geographic groups, for the 87 cities in the preceding table (latest available estimated population, 34,367,200)

	Diphtheria case rates	Encephalitis, infectious, case rates	Influenza		Measles case rates	Meningitis, meningococcus, case rates	Pneumonia death rates	Poliomyelitis case rates	Scarlet fever case rates	Smallpox case rates	Typhoid and paratyphoid fever case rates	Whooping cough case rates
			Case rates	Death rates								
New England	26.3	0.0	0.0	0.0	158	5.3	52.5	2.6	137	0.0	2.6	360
Middle Atlantic	6.5	0.5	7.4	1.9	62	3.7	54.2	4.6	54	0.0	0.5	99
East North Central	7.5	0.0	3.1	1.9	90	1.2	36.8	3.1	83	0.0	0.6	98
West North Central	12.1	0.0	10.1	0.0	583	2.0	70.4	0.0	82	0.0	2.0	211
South Atlantic	32.7	1.6	52.3	4.9	13	1.6	57.2	8.2	82	0.0	0.0	155
East South Central	5.9	0.0	41.3	11.8	71	5.9	88.5	47.2	59	0.0	0.0	30
West South Central	17.8	0.0	35.6	5.1	20	2.5	48.3	0.0	41	0.0	0.0	33
Mountain	7.9	0.0	15.9	0.0	1,064	7.9	55.6	0.0	119	0.0	0.0	286
Pacific	6.3	0.0	7.9	1.6	139	3.2	14.2	9.5	62	0.0	0.0	47
Total	11.4	0.3	13.1	2.1	134	2.9	44.1	5.3	72	0.0	0.6	120

TERRITORIES AND POSSESSIONS

Panama Canal Zone

Notifiable diseases—October 1947.—During the month of October 1947, certain notifiable diseases were reported in the Panama Canal Zone and terminal cities as follows:

Disease	Residence [1]									
	Panama City		Colon		Canal Zone		Outside the Zone and terminal cities		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chickenpox	7		3		2		2		14	
Diptheria	12						7		19	
Dysentery:										
Amebic	2	1					6		8	1
Bacillary							1		1	
Malaria [2]	6		3		7		265	3	281	3
Measles	2				1				3	
Paratyphoid fever	1				1				2	
Pneumonia		12			15	1		5	[3] 15	18
Poliomyelitis					1				1	
Relapsing fever							1		1	
Scarlet fever	1				1		1		3	
Tuberculosis		27		9	4	1		4	[3] 4	41
Typhoid fever	1						4	1	5	1
Typhus fever	1								1	

[1] If place of infection is known, cases are so listed instead of by residence.
[2] 19 recurrent cases.
[3] In the Canal Zone only.

Puerto Rico

Notifiable diseases—4 weeks ended November 29, 1947.—During the 4 weeks ended November 29, 1947, cases of certain notifiable diseases were reported in Puerto Rico as follows:

Disease	Cases	Disease	Cases
Chickenpox	7	Syphilis	159
Diphtheria	50	Tetanus	2
Dysentery	1	Tuberculosis (all forms)	878
Gonorrhea	133	Typhoid fever	7
Influenza	127	Typhus fever (murine)	1
Malaria	248	Whooping cough	32
Measles	479		

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended November 22, 1947. During the week ended November 22, 1947, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Chickenpox		42	1	185	341	41	71	90	70	841
Diphtheria		3		17	5		1	5		31
Dysentery:										
Amebic					1					1
Bacillary				6						6
German measles				4	23		1	14	6	48
Influenza		21			4				12	37
Measles		3		277	142	86	12	10	88	618
Meningitis, meningococcus								1		1
Mumps		36		108	160	22	13	32	24	395
Poliomyelitis		1		1	15	5	2	2		26
Scarlet fever		2	10	67	102	20	1		13	215
Tuberculosis (all forms)			20	112	16	29	14		28	219
Typhoid and paratyphoid fever				8	1				1	10
Undulant fever				3	2				3	8
Venereal diseases:										
Gonorrhea	3	10	9	95	116	18	25	53	70	399
Syphilis	7	8	9	64	51	9	9	9	16	182
Other forms				2					2	4
Whooping cough				66	79	39	15	54	30	283

MEXICO

Guanajuato—Diphtheria.—Information dated December 11, 1947, stated that a severe outbreak of diphtheria was occurring among children in the region of Guanajuato, Mexico.

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—Except in cases of unusual incidence, only those places are included which had not previously reported any of the above-mentioned diseases, except yellow fever, during recent months. All reports of yellow fever are published currently.

A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

Cholera

Egypt.—For the period December 1–7, 1947, 14 cases of cholera with 7 deaths were reported in all of Egypt. No cases of cholera were reported in any of the ports for this period.

Plague

China—Kiangsi Province.—Information dated December 10, 1947, stated that 96 cases of plague were reported in Shangjao, in the eastern part of Kiangsi Province, China, with a mortality of 75 percent. Twenty cases of plague were also reported in Linchuan, with several additional cases reported in Nanchang.

Smallpox

China—Foochow.—For the period October 21–31, 1947, 48 cases of smallpox with 2 deaths were reported in Foochow, China.

Ecuador—Guayaquil.—Smallpox (alastrim) has been reported in Guayaquil, Ecuador, as follows: Weeks ended—November 22, 1947, 42 cases; November 29, 33 cases.

Malay States (Federated).—For the week ended November 22, 1947, 78 cases of smallpox with 16 deaths were reported in the Federated Malay States.

Paraguay—Asuncion.—For the month of September 1947, 96 cases of smallpox were reported in Asuncion, Paraguay.

Portugal—Lisbon.—For the week ended November 8, 1947, 37 cases of smallpox with 1 death were reported in Lisbon, Portugal.

Typhus Fever

China—Sinkiang Province.—Information dated December 10, 1947, stated that an outbreak of typhus fever had occurred among the Kazaks where about 100 deaths were being reported daily. The disease is said to be spreading in Tihwa, Sinkiang Province.

DEATHS DURING WEEK ENDED DEC. 6, 1947

[From the Weekly Mortality Index, issued by the National Office of Vital Statistics]

	Week ended Dec. 6, 1947	Corresponding week, 1946
Data for 93 large cities of the United States:		
Total deaths	10,111	9,716
Median for 3 prior years	9,716	
Total deaths, first 49 weeks of year	449,607	441,814
Deaths under 1 year of age	724	761
Median for 3 prior years	640	
Deaths under 1 year of age, first 49 weeks of year	35,895	32,620
Data from industrial insurance companies:		
Policies in force	67,020,343	67,332,394
Number of death claims	13,230	11,963
Death claims per 1,000 policies in force, annual rate	10.3	9.3
Death claims per 1,000 policies, first 49 weeks of year, annual rate	9.2	9.4

FEDERAL SECURITY AGENCY

UNITED STATES PUBLIC HEALTH SERVICE

THOMAS PARRAN, *Surgeon General*

DIVISION OF PUBLIC HEALTH METHODS

G. ST. J. PERROTT, *Chief of Division*

The PUBLIC HEALTH REPORTS, first published in 1878 under authority of an act of Congress of April 29 of that year, is issued weekly by the United States Public Health Service through the Division of Public Health Methods, pursuant to the following authority of law: United States Code, title 42, sections 241, 245, 247; title 44, section 220.

It contains (1) current information regarding the incidence and geographic distribution of communicable diseases in the United States, insofar as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other important communicable diseases throughout the world; (2) articles relating to the cause, prevention, and control of disease; (3) other pertinent information regarding sanitation and the conservation of the public health.

The PUBLIC HEALTH REPORTS is published primarily for distribution, in accordance with the law, to health officers, members of boards or departments of health, and other persons directly or indirectly engaged in public health work. Articles of special interest are issued as reprints or as supplements, in which forms they are made available for more economical and general distribution.

Requests for and communications regarding the PUBLIC HEALTH REPORTS, reprints, or supplements should be addressed to the Surgeon General, United States Public Health Service, Washington 25, D. C. Subscribers should remit direct to the Superintendent of Documents, Washington 25, D. C.

Librarians and others should preserve their copies for binding, as the Public Health Service is unable to supply the general demand for bound copies. Indexes will be supplied upon request.

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C.: 1948

For sale by the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C.

Price 10 cents. Subscription price $4.00 a year